REPORT RESUMES

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TOWARD EDUCATIONAL OPPORTUNITY FOR ALL.

BY- KNOELL, DOROTHY M.

STATE UNIV. OF N.Y., ALBANY

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THE BOARD OF TRUSTEES ASKED THAT THIS STUDY BE MADE BEFORE ESTABLISHING WHAT WOULD IN EFFECT BE A THIRD TYPE OF 2-YEAR COLLEGE IN THE NEW YORK STATE UNIVERSITY SYSTEM. THE PROPOSED PROGRAM WOULD INCLUDE THE DISADVANTAGED IN URBAN AREAS AND THE LOWEST QUARTER OF HIGH SCHOOL GRADUATES, AMONG OTHERS. THE MAJOR PHASES OF THE INQUIRY INCLUDED AN ASSESSMENT OF THE MANPOWER SITUATION AND A REVIEW OF WHAT IS BEING DONE BY OTHER AGENCIES, INSTITUTIONS, AND SPECIAL GROUPS TO SOLVE THE DUAL PROBLEM OF PRODUCING TRAINED MANPOWER AND MEETING THE NEEDS OF YOUNG PEOPLE FOR EDUCATIONAL OPPORTUNITY. ORIGINAL RESEARCH WAS UNDERTAKEN IN THE THREE AREAS--STUDENT-PARENT INTERVIEWS, COLLEGE ATTITUDES AND OPINIONS, AND FOLLOWUP STUDIES OF COLLEGE DROPOUTS. THE PLAN FOR EACH STUDY IS PRESENTED BRIEFLY, FOLLOWED BY A SUMMARY OF THE MAJOR FINDINGS. SIX BACKGROUND PAPERS ON VARIOUS ASPECTS OF EXTENDING OPPORTUNITY, PARTICULARLY WITH RESPECT TO URBAN DISADVANTAGED YOUTH, ARE SUMMARIZED. CONCLUSIONS, IMPLICATIONS, AND GUIDELINES FOR ESTABLISHING AND DEVELOPING STATE UNIVERSITY URBAN CENTERS END THE REPORT. (HS)

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Toward Educational Opportunity for All

ED011454

Dorothy M. Knoell

STATE UNIVERSITY OF NEW YORK
Thurlow Terrace, Albany, New York 12201

Office of the President

Mr. Clifton W. Phalen, *Chairman*
State University Board of Trustees
New York Telephone Company
140 West Street
New York, New York 10007

Dear Mr. Phalen:

With this letter I am transmitting the report of the study of urban colleges which the State University of New York Board of Trustees directed the President of the University to undertake. The Trustees' resolution establishing the study was adopted at the December 10, 1964 meeting of the Board.

The report of the urban college study represents an effort of over a year to determine the State's needs for the State University of New York to provide services in the urban centers of population of the State for persons who have not been reached by traditional institutions and practices in higher education. The University is already engaged in a number of new undertakings that are in line with the findings and conclusions of the study. New ones will be proposed for your consideration in the near future.

Sincerely,

Samuel B. Gould

Samuel B. Gould

August 31, 1966

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Toward Educational Opportunity for All

By Dorothy M. Knoell

Office of Executive Dean for Two-Year Colleges
State University of New York
Albany, New York, 1966

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Introduction

The State University of New York is embarking upon a new era of educational opportunity for the young people of the State with the establishment of new enrollment plans and projections to the year 1974. Growth will occur in all segments of the University and in all parts of the State, but it will be the two-year colleges which will have increasing responsibility to serve youth to whom no appropriate opportunity for education beyond the high school now is offered. Fewer than one-half the high school graduates in New York State now attend college. While compulsory education beyond high school seems unlikely in the near future, it is clear that far more young people could profit from further education than are now attending college. Numbers are largest and opportunity least abundant in the urban areas, particularly for the economically and educationally disadvantaged, and it is their plight which prompted the present study.

The study involves research into some of the realities of expanding educational opportunity in the State University, and an examination of the philosophic commitment of the State to the provision of universal opportunity for education beyond the high school. The realities include the feelings of the young people now without opportunity (and their parents), the attitudes of board members and staff in the two-year colleges, the experience of young people who "tried" college and failed to complete programs, and the statistics of the manpower experts.

The research undertaking was an ambitious one for the ten months in which the field study was to be completed, and the research findings could not be presented in depth in this report. However, the analysis leaves little doubt about the complexity of the task of developing appropriate opportunities for young people who are now beyond the reaches of our colleges. No state has yet fully achieved the goal of providing educational opportunity suited to the needs and abilities of all who would partake of it, although many are making significant progress in this direction. The State University of New York now has a unique opportunity to seize the leadership in this national endeavor.

Samuel B. Gould
President
State University of New York

August 31, 1966

Foreword

Paradoxically, the educationally disadvantaged youth of the rural areas in New York State — fewer in number when compared with their urban counterparts — have seemed to command a larger spotlight for a longer time. The dramatic reduction in number of small rural school districts, achieved by centralization, and the consequent increase in quality of rural school opportunities have characterized the secondary school scene for half a century now. At the postsecondary level, the present agricultural and technical colleges have histories going back sixty years, whereas even the elder of the community colleges are but teen-agers.

It was timely that in December 1964, with the newly revised State University of New York Master Plan before him, Governor Nelson A. Rockefeller should have called attention to the plight of urban youth "for whom neither the regular four-year nor the community college now provides the answer." With an equal sense of timeliness, President Samuel B. Gould brought the problem to a meeting of the Board of Trustees within 24 hours after receiving the Governor's letter. The Board was swift to authorize a study, the Governor equally swift to assure the budget funds.

The Steering Committee had not completed its first meeting before a dominant theme of discussion became the felt necessity to broaden the inquiry beyond needs of the specified urban areas to the larger question of unmet needs of New York State youth, in general, for education beyond the high school. There was ready accession to the Steering Committee's request for this expanded study mission. Attention then turned to securing the services of a person of professional stature to conduct the field investigations and to write the report. Just such a person was Dr. Dorothy M. Knoell, who when she joined the staff of State University of New York was fresh from the completion of significant two-year-college research publication at the Center for the Study of Higher Education, University of California, Berkeley.

Dr. Knoell has re-acclimated herself quickly in her native New York State, and, working against time since her arrival in September 1965, has produced a penetrating and comprehensive study report.

During the latter stages of report preparation, concomitant activity towards the establishment of State University Urban Centers in Brooklyn, Buffalo, the Capital District, and Harlem has been going forward under the direction of Dr. James S. Smoot, Coordinator. New York State is "moving in" ever more quickly now on her problems of the educationally disadvantaged at postsecondary age levels.

Kenneth T. Doran
Associate Executive Dean for
Two-Year Colleges

August 1966

Acknowledgments

It would have been impossible to carry out a study of this magnitude in such a short time without the assistance of many people. The author is indebted, of course, to the Study Director and the members of the Steering Committee for their guidance throughout the research phase of the study, and for their helpful criticism of the report. Sincere appreciation is expressed also to the many members of the central administration of State University who gave assistance at various stages of the study.

Considerable help was given by staff members in several other educational agencies, particularly E. L. Eckles and his associates in the State Education Department, Mortimer Kreuter of the Center for Urban Education in New York City, and E. K. Fretwell, Jr., and his associates on the central staff of the City University of New York. Finally, the invaluable assistance of Leland L. Medsker of the University of California at Berkeley in the planning stages of the study is gratefully acknowledged.

The following members of the secretarial staff worked diligently on the preparation of the drafts of the report: Susan Fairman, Nancy Rourke, Joann Hayes, and Robin Adell.

Dorothy M. Knoell

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1. Background of the Study

For many thousands of young people, the State University of New York is fulfilling its pledge to "Let Each Become All He Is Capable of Being" in its systems of two-year and four-year colleges, specialized and professional schools, and university centers. However, the State is not fully meeting the challenge of offering universal opportunity for education beyond the high school, in the sense that appropriate offerings have yet to be developed in a broad spectrum of programs to meet the needs of all high school graduates. The most recent statement of what is becoming a national goal—providing opportunity for free public education for all at least through grade 14—was made by the National Commission on Technology, Automation, and Economic Progress.[1] The Commission, recognizing the rapidity of economic change in the United States, emphasized the necessity for general education during the secondary school years and recommended that vocational training be deferred until after high school for most students. Community colleges and technical schools—perhaps "merged into a community education center"—were charged with offering "both the theoretical foundation of trade, technical, and business occupations and the opportunity to 'learn by doing' while pursuing liberal education or semi-professional training."[2] Finally, the Commission made the plea that no student be deprived of education at any level because of financial reasons.

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[1] *Technology and the American Economy: A Report of the National Commission on Technology, Automation, and Economic Progress, Volume I* (Washington, D.C.: U.S. Government Printing Office, 1966), Publication No. 0-788-561.

[2] *Ibid.*, p. 46.

Two years earlier, an eloquent statement of this national goal was made by the Educational Policies Commission (EPC) of the National Education Association. In a pamphlet, *Universal Opportunity for Education Beyond the High School,*[3] the Commission suggested that as America approached its goal of universal high school education, the sights should be raised to provide universal opportunity for two additional years of education "aimed primarily at intellectual growth."[4] The emphasis of the Commission was on education with the goal of freedom of the individual through his attainment of cognitive, rather than vocational competencies. Attention was called to the particular characteristics of adolescents as they leave high school to enter an ever changing world, and to their needs which should be considered in planning for education beyond high school. The EPC prospectus for equal opportunity is admittedly idealistic for the 1960's but it is no less compelling than that of the National Commission.

The commitment to universal opportunity for post-secondary education was made long ago to New York State youth by the Board of Regents of the University of the State of New York and by the Board of Trustees of the State University. The periodic master plans for the development of higher education have attested to the commitment. However, it cannot be denied that there are basic questions which must be resolved in the situation, and some of them are the subject of this study. Perhaps the most serious is the question of which agencies or institutions will in fact extend opportunty to the least able of the high school graduates. New York is unusual among the states in that it has three strong types of two-year colleges—the independent junior colleges, the local community colleges, and the state-administered agricultural and technical colleges. The question which was the genesis of the present study concerns the need for still another type of two-year institution, vocational in nature and serving, among others, disadvantaged youth with scant "college potential."

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[3] Educational Policies Commission, *Universal Opportunity for Education Beyond the High School* (Washington, D.C.: National Education Association, 1964).

[4] *Ibid.*, Foreword.

The assumption is usually made that there is in fact a demand for some type of educational opportunity on the part of young adults not now attending college. An unascertained factor which must be examined in connection with planning for expansion of opportunity is the degree of readiness of those not now going to college to take advantage of the opportunity which will be offered them and the conditions, if any, they will set for availing themselves of this opportunity. The nation's employment pattern has changed during the brief course of the study from moderately high unemployment among the unskilled and uneducated to a severe threat of labor shortages of many types. While an alarming number of young adults may now be employed in jobs beneath their capacities, only those most seriously handicapped by a lack of education are actually unemployed. The question, then, is whether the high school graduate about to begin his first job will give up this measure of security to obtain specialized training which might lead to better employment opportunities. Current military manpower requirements also have an effect on both the labor supply and on planning for the extension of educational opportunity.

While military service delays college for some young men, it also provides specialized training at the post-secondary level for others and, under the new G.I. Bill, offers promise to countless thousands that they will be able to continue their formal education after leaving the service.

Still another question of serious proportions is whether the present system of tuition charges, rebates, loans, and awards creates truly equal opportunities to take advantage of post-secondary education. The National Commission has recommended the establishment of a system of free public education extending through grade 14. The State of New York has long subscribed to the principle that each student be able to develop his full potential without regard to his ability to pay, but the implementation of this policy may appear ineffectual to the outsider. Still another aspect of equalizing educational opportunity, beyond the question of free tuition, concerns the obligation of the State to make it financially possible for the capable, needy student to enroll in a specialized program not offered by the institution in his home community. Would equal opportunity be enhanced by offering him a loan which would enable him to travel to another community for the program? In equalizing educational opportunity, how does the State cope with the mobility of its labor force-in-training?

The fourth question deals with the adequacy of the resources of the State and the local communities to extend educational opportunity to all. The National Commission has proposed a national commitment to the goal and a nation-wide system of post-secondary education, but few would infer that the intention was to establish a federal system to supersede those now being developed by states and local communities. The question for the State of New York is whether the local communities can speedily meet the real and anticipated needs for more spaces, more diversified programs, and better counseling and instruction. Must the State contribute a larger share, pay the whole bill, or perhaps create its own new educational institutions, in order to keep pace with the increasing demands of its citizenry for equalized educational opportunity?

The federal government has recently assisted the development of occupational education programs by funding a variety of extra-institutional educational programs for out-of-school youth. The aim is to help those high school graduates and dropouts who were unemployable in a time of rather high unemployment and who are now termed the "hard core" unemployed. While training in specific occupational skills has been the major object of such programs, some are organized to provide training in basic educational skills for students who are woefully deficient, and on-site resident programs for others whose cultural and economic disadvantage is extreme. In still another sense, the present military buildup is providing specialized post-secondary education for many young men and women. However, the eventual impact of this resource cannot be estimated at present.

Who Goes to College?

The State of New York falls about in the middle in a ranking of the 50 states based on the percentage of high school graduates who go on to college.[5] From reports made by secondary school principals, an estimated 55 to 60 per cent of the graduates now continue their formal education the following year, in either some type of college or a specialized school. Little or nothing is known about the incidence in New York of delayed college entrance, *i.e.*, high school graduates who enter college after an interim period of employment or other non-college activity. New York is indeed a "debtor" state, with probably 75,000 undergraduate students attending colleges in other states, nearly 30 per cent of them in public institutions. About 35,000 undergraduates come to New York from other states but few are accommodated in State or City University units.[6] It is difficult to predict trends in migration because of changes taking place both in the State University of New York and in other states. Improved programming and new facilities in State University will undoubtedly be attractive to many students who otherwise would have left the state to go to college. Increased tuition and/or stiffer entrance requirements for New York applicants to public institutions in other states may deter future out-state migration. In any case, it is essential that New York State have sufficient higher education facilities available to meet whatever contingencies arise, particularly in a time of increasing demand for higher education.

Few data are available for use in describing New York high school graduates who now attend college. The

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[5] Mabel C. Price and Paul L. Mason, *Residence and Migration of College Students, Fall, 1963* (Washington, D. C.: U. S. Department of Health, Education, and Welfare, Office of Education, 1965), p. 89.

[6] *Residence and Migration of College Students in New York State, Fall, 1963* (Albany: The State Education Department, Bureau of Statistical Services, Bureau of Research in Higher and Professional Education, June 1965).

assumption is often made that the students who go are the "best"—those in the upper half of their graduating class. However, there appear to be no objective data from state-wide studies of student characteristics to support this assumption. The absence of clearly stated standards or requirements for admission to State University colleges and centers complicates the task of describing the quality of students in the University system. City University students, who constitute about 20 per cent of the in-state undergraduate total, can be described roughly in terms of the minimum high school average required for admission to the various units. However, we may conclude that relatively little is known about the group characteristics of the many thousands of young people who attend private institutions in New York State and both public and private institutions in other states. Thus, one can only speculate about the nature of the group not now served by existing institutions and current programs. The assumption is made by some that inability to pay for one's education beyond the high school is no barrier to college attendance, because of the State's liberal financial aid programs for both the talented and the needy. However, few would deny that, as elsewhere, socioeconomic class is an important determiner of college attendance in New York State.

The Request for Study

In a special report to the Legislature in 1964, the conclusion was drawn that there is a present need for a new type of State University college to serve the specific needs of the least able high school graduates, *i.e.*, the bottom quarter.[7] The basis for the recommendation of a new type of college was the observation that at least one-fourth of the high school graduates now fail to obtain "even a minimum education suitable for the space age and the age of automation," and that present community colleges do not create an appropriate climate, socially or culturally, for learning by this lowest group. More particularly, attention was called to the needs of disadvantaged youths in the urban areas, with the recommendation that five experimental "youth colleges" be established under State University jurisdiction in the five largest cities of the state.

Late in 1964 Governor Rockefeller asked the Board of Trustees of State University to consider the establishment of a new type of urban, two-year college to serve young adults in programs combining liberal arts and technical subjects. The programs were to be occupationally oriented and designed to serve youth from culturally underprivileged or economically deprived families. The Governor suggested further that these colleges be established in Harlem, the Bedford-Stuyvesant area of Brooklyn, and in Buffalo. The action of the Trustees was to request that a survey and analysis of need be made, the results of which were to be presented to them for consideration in relation to the Governor's request. A study director and steering committee were then appointed, and a reporting date of September 30, 1965, was set.[8]

The focus of the study was broadened subsequently to encompass a more general inquiry into the unmet needs of New York youth for education beyond the high school, with emphasis on disadvantaged youth in the urban areas. A major result of this broadening was the involvement of all community and agricultural and technical colleges in some phases of the study, regardless of their geographical location in the state. Other phases were concentrated in the State's seven major metropolitan areas—Buffalo, Rochester, Syracuse, Rome-Utica, Albany-Troy-Schenectady, Yonkers, and New York City.

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[7] *The Legislature and Higher Education in New York State: A Report by the Legislature's Consultant on Higher Education* (New York: Academy for Academic Development, December, 1964), pp. 33-35.

[8] State University Trustees' Resolution 64–297, December 10, 1964.

Goals of the Study

The original goal of exploring the need for a new type of urban college was modified as a result of an early action of the 1966 Legislature in appropriating funds to establish four such colleges, in response to a request from the Governor.[9] The general goal of the study then became a fairly broad assessment of the unmet needs for post-secondary education which State University might meet in some type of two-year college. The more specific purposes of the study are:

1. To find out from young people who might benefit from new types of post-secondary school experience (and from their parents)

    a. What their immediate plans are for employment, military service, or other activity after high school graduation;

    b. What they perceive their need to be for further education or training;

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[9] Guidelines for the State University Urban Centers are contained in Appendix A, pp. 205-211.

c. The conditions under which they would be interested in obtaining additional education in a collegiate setting, *e.g.*, the proposed urban colleges;

d. Their evaluation of their high school and work experience prior to graduation;

e. Personal and family characteristics which may be related to their aspirations and plans.

2. To survey the attitudes and opinions of faculty, administrators, and trustees of the public two-year colleges with regard to

a. The proper role and functions of the community college in higher education, *e.g.*, who should be admitted, and the relationship between transfer and terminal programs in the same institutions;

b. Priorities to be given in adding programs and functions at levels and with characteristics which have not been clearly within the framework of State University programming in the past.

3. To assess the employment status of dropouts from two-year colleges, in terms of relationship of their college program to their field of employment and their plans for further education, either in or out of college.

4. To find out the extent to which opportunity for college is now denied high school graduates solely on the basis of the nature of their preparation, *i.e.*, in vocational or general studies programs, rather than the quality of their achievement in high school.

5. To explore the implications of manpower-labor force information—both statistical and evaluative—in

the development of new post-secondary educational programs by State University.

6. To examine selected types of programming for occupational education under non-collegiate auspices, *e.g.*, the Manpower Development and Training Act, and in junior college systems in other states.

7. To analyze problems of extending educational opportunity through the medium of background papers on student characteristics, curriculum issues, innovative techniques, student personnel, and the general philosophic dilemma of the community college.

Organization of the Report

There are three major types of material included in the report—summaries of other investigations and data pertinent to the problem under study, brief reports of original research conducted for the study, and a summary of the background papers. State and national events which led to the request for the study by the Board of Trustees of State University have been presented in the first chapter. The second chapter comprises primarily the philosophic framework within which the inquiry was conducted, including the formal positions of the three boards with responsibility for coordination in planning for higher education in New York State, and the operating assumptions which follow from their positions. The third chapter briefly summarizes the pertinent manpower information and projections for New York, which again provide a kind of framework within which the inquiry was organized and planning must take place. This is followed in Chapter 4 by a discussion of some of the in-

and out-of-school programs designed to meet the needs of young adults, which tend to go beyond the traditional scope of the two-year colleges in New York State.

Three special research studies constitute Chapters 5 (student-parent interviews), 6 (college attitudes and opinions), and 7 (follow-up studies of college dropouts). The plan of each study is presented briefly, followed by a summary of the major findings. A summary of the position papers is contained in Chapter 8, and a general summary of the inquiry in Chapter 9. The final chapter contains the conclusions and their implications.[10]

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[10] The present report might be regarded as a kind of abstract of a more complete report which will be published by the State University in 1967. More detailed accounts of the research will then be reported, together with the six background papers.

2. Philosophical Framework for the Investigation

The Position of the Boards

The concern of the New York State Board of Regents is best expressed in the Foreword to its most recent master plan, as follows:[11]

> Chief among the immediate concerns which the people of the State are alerted to act upon is the 'gap' between the number of persons actually entering college and the much greater number who have the ability to succeed in college study. This 'gap' represents an intolerable waste of valuable human talent. . . . [t]here is a need to concentrate greater attention on identifying and motivating the large number of able and talented young men and women who do not now even consider college attendance.

One model for closing the gap is contained in the Regents "Policy Statement on the Comprehensive Community College," in which they endorsed the following propositions, among others:[12]

> I. Comprehensive community colleges should be recognized and supported as the basic institutional approach to providing a broader public educational opportunity above the high school level in New York State.
>
> II. These institutions should be open to all high school graduates or persons with equivalent educational background, operated at low cost to the students, and located within reasonable daily commuting distance of the students' places of residence.

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[11] *The Regents Statewide Plan for the Expansion and Development of Higher Education, 1964* (Albany: The University of the State of New York, The State Education Department, April, 1965), pp. v-vi.

[12] *Ibid.*, p. 124.

III. The comprehensive community colleges should be expected to perform the following specific educational functions (Paragraphs A and B, GENERAL EDUCATION and COLLEGE OR UNIVERSITY TRANSFER EDUCATION have been omitted):

C. OCCUPATIONAL OR TERMINAL EDUCATION. To provide programs of education and training beyond the high school, but below the professional level, for students seeking, for whatever reason, immediate entry into the productive labor force in business, industry, or government organizations in need of employees with higher level abilities; and for persons already employed but seeking to improve or learn new skills required in our changing economic and cultural environment.

D. ADULT OR CONTINUING EDUCATION. To provide programs of continuing education appropriate to and consistent with the level immediately above the high school in the educational system to assist adults of all ages to meet changing educational, cultural, and economic conditions and to implement changes in their personal objectives.

E. GUIDANCE AND COUNSELING. To provide for all students the necessary testing, guidance, and counseling to enable each one to know and accept his strengths and limitations and to choose the program most suited to him in the light of objective information and his personal situation at the time.

The policy statement on the community college is a logical concomitant of the Regents "Goals for Education Beyond the High School," three of which are:[13]

— Equal and open educational opportunity beyond high school for each qualified person who desires such education, the opportunity to be unrestricted by race, creed, or national origin, and to be available until each person's needs for economic and social self-sufficiency are met.

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[13] *Ibid.*, p. 28.

- A system of post high school education through graduate and professional levels that will meet New York State's needs for trained manpower and higher educational services related to business, economic, and industrial development, to maintain the State's position of leadership nationally and internationally.
- Equalization of post high school educational opportunity available in each economic-geographic region so that factors of cost and accessibility are more even throughout the State.

The commitment of the State University Trustees to these same goals is implicit throughout the 1964 revision of the master plan.[14] The specific charge given to the two-year colleges reads in part as follows:

> The two-year colleges are the very foundation of the University. More and more, it is they who are opening the door to higher education, revealing to the youth of the State the scope of the total University and the educational opportunities it offers them.
>
> These colleges must respond to the widest range of talent and offer a broad spectrum of programs, including the liberal arts and technical and vocational subjects. The two-year colleges must enable a young adult to measure against the needs of society his ability and his willingness to work.[15]

And in still another section on "Aid to the Disadvantaged":

> One of the urgent domestic problems facing New York, as well as other states, is the plight of the disadvantaged. . . . Some of the two-year colleges will establish programs designed to help these students develop the skills, study habits, and social behavior required for a fuller and more productive life. It is hoped that many of the disadvantaged who undertake these

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[14] *Stature and Excellence: Focus for the Future*, The Master Plan, Revised 1964 (Albany: The State University of New York, 1964).

[15] *Ibid.*, pp. 15-16.

programs will eventually be trained as technicians. Others will be encouraged to continue their studies in four-year colleges and graduate schools.[16]

Finally, the City University of New York recently prepared a draft of a second interim revision of its 1964 master plan, in which a specific plan was developed for offering educational opportunity to all high school graduates by 1975.[17] It has been proposed that by that date opportunity be made available to approximately the top one-fourth of the high school graduates who may wish to attend senior colleges, 40 per cent of the graduates who may wish to enroll in present types of programs in community colleges, 10 per cent who may qualify for college discovery programs, and the bottom one-fourth who may enter educational skills center programs. Furthermore, it is anticipated that as many as 16.5 per cent of the graduates will avail themselves of opportunities in the senior colleges of City University, 23 per cent in community colleges, 6.6 per cent in college discovery programs, and 20 per cent in the skills centers. The latter estimates make some allowance, of course, for students electing to attend private and out-of-city public institutions, as well as those who simply are not interested in formal education right after high school. The goal of the Board (and its determination) is ". . . to offer the benefits of post-high school education to all residents of New York City who are able and eager to avail themselves of these benefits."[18]

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[16] *Ibid.*, p. 13.

[17] *Draft of Second Interim Revision of the 1964 Master Plan for the City University of New York* (The Board of Higher Education of the City of New York, City University of New York, April 13, 1966), pp. 55-59.

[18] *Ibid.*, p. 55 (quotation from the minutes of the February 28, 1966, meeting of the Board).

The State University made public in June 1966 its pledge to double enrollments by 1974, thereby offering opportunity to all high school graduates who will seek its services.[19] A shortage of spaces in college for some 75,000 high school graduates is expected by 1970, which should be dissipated by 1974 by new facilities now being planned. About half the increase in enrollment between 1970 and 1974 is expected to take place in the community colleges. The pledges of State and City University to make opportunity available to all high school graduates in the 1970's in no way implies an assumption that all high school graduates must continue their education (or that all will want to). Regardless of the nature and scope of opportunity for further education, there will always be some who will exercise their freedom of choice to reject what is offered, sometimes for quite valid reasons. The planners are cognizant of the increasing demand of young people for education beyond the high school but do not anticipate the imposition of compulsory attendance in their projections for the 1970's.

Of the three Boards, only the Board for the City University has taken the stand that the programs should be tuition-free, although all maintain that no young adult should be deprived of opportunity because of his economic circumstances. The gap between the positions widens when one takes into account the very rapid, inexpensive transit system which links the units in New York City and makes them accessible to students in the various boroughs. Upstate, the students living in small population centers currently must either settle for one of the limited number of programs offered locally or face the increased costs of going away to the college where their desired programs are offered. Campus location is indeed a problem in some upstate cities — to put the campus (or a branch) in the inner city so as to be accessible to students without cars and often inconvenient for students with cars because of limited parking facilities, or to establish it in the suburbs where land may be inexpensive but public transportation from the city either inconvenient or inoperative. The principle of opportunity for education without regard to the student's ability to pay is a facile one to agree to but its application to the graduate of a high school in an upstate community of moderate size is often quite complicated.

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[19] Announcement by the President appearing in the June 6, 1966, editions of *The New York Times.*

Operating Assumptions for the Study

The terms used in discussing the extension of educational opportunity to all high school graduates are emotionally charged, particularly in times of shortages of spaces in colleges. High school and college counselors, parents, faculty members, master planners — all have their own meanings attached to the terms "higher education," "training and education," "college," "post-secondary," and "terminal," among others. Communication among persons with common goals is sometimes made difficult by different understandings of these terms on the part of the discussants. For ease in communication, the term "post-secondary" will be used to denote time, rather than level, *i.e.*, after high school graduation but not necessarily at an inherently higher level of skill or complexity. "College" will be used to denote post high school programs and experiences in regularly accredited, degree-granting institutions, as contrasted with proprietary schools and federally funded training programs for out-of-school youth and adults.

A number of assumptions about college attendance, institutional factors, and programs are critical in making an assessment of need in expanding opportunity for educaton beyond the high school. Their acceptance is in many instances necessary as a basis for agreeing with the conclusions which will follow.

Assumptions about College Attendance

1. *All high school graduates have some potential for further education* although they differ in their motivation, value systems, and readiness for college at the time of graduation from high school, as well as in their special aptitudes and prior achievement.

2. *The mere offering of additional opportunity to attend college may not be enough* to achieve State University's pledge to the young people of New York State. Many students who are not now seeking admission to college need to be encouraged to do so by their high school counselors and teachers, and given information about both program opportunities and financial feasibility. Some others who are planning to attend four-year colleges may need to be counseled about the advantages of other types of post-secondary educational opportunity.

3. *College will have to be made to appear both attractive and feasible to young people and to their parents.* The disadvantaged in particular must be shown that post-secondary education will "make a difference" in their earning power and their personal fulfillment. Capable

women who lack interest in current college offerings may also need encouragement to develop their full potential, which is often not reached with the high school diploma.

4. *The finding that few who seek admission to college are not now being accommodated somewhere should be no cause for complacency*[20] since many who could profit from post-secondary education do not apply because of poor information about opportunities, lack of interest or motivation, and/or the failure of counselors to give needed encouragement and assistance.

About Need for Expansion

1. *A sizeable but undetermined number of high school graduates could succeed in present occupational and liberal arts curriculums in the technical and community colleges, if they were helped to develop realistic goals and counseled into appropriate programs of preparation.* However, there is a critical need for more and better counseling at all levels of education which amounts to a national problem.

2. *Additional spaces in existing programs and colleges and the creation of new degree programs and facili-*

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[20] A staff study made for the State Education Department in 1965 supported the point of view that no real shortage of college spaces exists for the upper three-fourths of the graduates who actually apply for college. Principals of a random sample of New York State high schools reported near the end of the school year the number of seniors who had applied for admission and had not been notified by a certain time by the college. Only 2.5 per cent of the applicants, state-wide, were in this situation. However, the question was ambiguous in that applicants who had been rejected might also have been counted since they had been notified by the college of their choice. Nothing is known about students in the lowest quarter or about good students who did not apply.

ties are needed but these, alone, will not *meet the need for expanded opportunity.* There are many high school graduates who could profit from some type of post-secondary education but lack the aptitude or interest to pursue the present degree programs. The general education courses appear impractical to some; the teaching seems uninspired and mediocre in quality to others. Many not now in college simply would not be able to profit from full-time classroom study lasting two years or more.

3. *Many high school graduates not attending college are denied an opportunity to enter technical or liberal arts programs because of high school deficiencies in preparation.* Some have failed to enroll in the required high school courses. Others enrolled but, because of immaturity or poor motivation, did not perform at a minimally satisfactory level for college admission. Students from minority groups, particularly in the ghetto schools, often have little opportunity to develop their latent abilities in high school. A lack of creative and imaginative educational devices for exploring their abilities and interests is but one contributing cause of their disadvantage.

About Attendance Patterns

1. *Students achieve their college objectives in diverse patterns of attendance.* Many young people defer college for reasons of finance, job opportunities, marriage, and lack of motivation at the time of high school graduation, among others. The tendency of educational planners and counselors to limit their attention to recent high school graduates who are available for full-time study is lamentable if older students with high potential are thus

overlooked or given a lesser priority in the accommodation of applicants for college admission.

2. *Although universal opportunity for education beyond high school is a desirable goal for the next decade, compulsory post-secondary education appears neither feasible nor desirable.* Not all high school graduates should be expected to attend college immediately and some will not go at all. However, provision should be made for (and encouragement given to) mature individuals who can demonstrate their ability to do college work at some later date, as well as for the majority who are expected to attend college immediately after high school.

3. *Many high school seniors want only one additional year of education or training (or less) before entering full-time employment, marriage, or other out-of-school activity.* Programs should be planned so that each successive term will produce employable skills, which may also serve as a base for later training after a period of employment or other activity.

4. *The needs of adults for re-training, upgrading, broadening experiences, refresher courses, or even pre-employment training* (for married women who did not enter the labor force after high school) *must also be recognized* in any reporting of variant attendance patterns.

About Institutions and Programs

1. To achieve the goal of universal opportunity for education beyond high school, *a wide range of educational programs should be developed which differ in their objectives, content, and intellectual complexity.* Counseling

should be made readily available from the junior high school years through graduation to assist students in making wise educational and occupational choices and plans, and in revising them when evaluation shows the advisability of doing so.

2. The estimate of the National Commission on Goals that probably half the new college students should be in two-year institutions is somewhat conservative.[21] *The diverse needs of up to three-fourths of all high school graduates could be met effectively and economically in comprehensive two-year colleges,* close to the students' homes and charging low tuition (or none at all).

3. *Community colleges are not now sufficiently comprehensive to serve the needs of all high school graduates, particularly those in the lower one-third of their class.* New programs at the sub-technical or skilled craftsman levels are needed which will be less rigorous, academically, than present degree programs. There also appears to be need for entirely new concepts in programming, for jobs which may not yet exist, *e.g.*, as aides in social welfare. Finally, the remedial or salvage function of the two-year college must be implemented if it is to become a truly comprehensive institution.

4. *A vast increase in the comprehensiveness of clientele and programs in present types of two-year colleges is preferable on several grounds to the creation of new types of institutions at the present time.* Problems in comprehending differentiation of functions and programs

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[21] *Goals for Americans: Programs for Action in the Sixties,* A Report of the President's Commission on National Goals, Columbia University, The American Assembly (New York: Prentice-Hall, 1960), pp. 90-94.

now exist among counselors and others which would be multiplied if new types of institutions were established by State University.

5. *As community colleges in the large urban areas grow in size and comprehensiveness, there may be need for additional campuses in order to preserve the kind of climate associated with a good teaching institution.* An effort should be made to insure educational and occupational mobility among programs and campuses and to establish some optimum degree of comprehensiveness on each campus.

6. *Two- and four-year colleges, both public and private, can co-exist in the same community or service area because of their differing functions and services.* However, the State University agricultural and technical colleges may serve some community college functions for both commuting students and those residing outside community college service areas.

About Financing

1. *Ingenuity and flexibility are needed in the financing of community college programs leading to the achievement of the goal of universal opportunity for post high school education.* Special state subsidies may be needed for some programs which would otherwise be added only after degree programs are fully implemented, as an incentive for becoming comprehensive.

2. *Fiscal barriers now exist to the full and rapid development of comprehensive community colleges and to the provision of equal opportunity for New York State*

youth to obtain education beyond the high school. Old formulas for financing and traditional approaches to student financial aid work less and less well as the State moves in determined fashion toward universal opportunity for higher education. In order to achieve this goal some combination of the best features of a totally state-supported system of two-year colleges and of locally controlled and financed community colleges may be necessary.

Possible Obstacles to Progress

Despite the commitment of the three Boards to the extension of opportunity to all high school graduates, there have been obstacles — both real and imagined—to progress in securing universal opportunity. Not the least of these has been a lack of clear understanding about whose job it is to develop vocational programs beyond the high school but below the associate degree level. There have been at least two major contenders and a number of others who have actually been offering such programs. The public school systems throughout the state, with leadership from the State Education Department, have made feasibility studies and developed proposals for new, well financed area vocational schools. Implementation of the proposals has been somewhat impeded by failure of the 1966 Legislature to act on a bill which would make funds available for construction of permanent facilities. Efforts to obtain such legislation had also been unsuccessful the previous year, when the Governor vetoed a similar bill. Nonetheless, a modest start is being made in some sections of the state but with a lessened likelihood of competition for the post-graduate vocational student.

The State University is the other contender, with its systems of two-year colleges which until now have tended to limit their daytime offerings to associate degree programs. At one time there was some question as to whether short-term programs could be funded under regular support formulas. Policy questions now have been resolved in favor of the inclusion of vocational programs within the legitimate scope of the two-year colleges although local priority in budget matters may continue to be given to degree programs in the technologies and the liberal arts.

Other contenders in the offering of post-secondary vocational programs are the federal government with its manpower training programs, labor unions with apprenticeship programs, industry offering on-the-job training, and the proprietary schools. At the same time, extensive evening and extension programs have been developed on the campuses of some two-year colleges which are self-supporting, ostensibly for employed adults, and meeting whatever needs for training or up-lifting or broadening can be identified and supported by fees.[22] The problem of assuming responsibility for the job of offering less-than-degree training to high school graduates may now have been resolved by a clear if recent understanding among the major contenders that the high school graduate is primarily the responsibility of State University, rather than the public school system, insofar as the needs of young adults for occupational training are to be served. The responsibility rests implicitly (if not yet explicitly) with the State University community and agricultural and technical colleges.

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[22] See pages 70-73 for an analysis of these offerings. A list of approved curriculum, option, and sub-option titles is given in Appendix B, pp. 212-216.

Still another obstacle is the poor understanding and appreciation much of the public has of its local community college. This is particularly true of the parents and counselors of high school students. The problem is not unique to New York State but there is less excuse for it here since the two-year colleges have been assigned a distinctive role to play in higher education in the training of technicians. Despite the excellence achieved by the colleges in this type of program, the public tends to view the community college as an institution for students who cannot qualify for admission elsewhere or who cannot afford to attend a four-year college. The continuing ability of the proprietary schools of business and the trades to attract large numbers of high school graduates, despite high fees charged in some cases, may be a partial reflection of the public's failure to understand what it should expect of its community colleges. It seems unlikely that any state can achieve the goal of offering post high school opportunity for all without the full development and utilization of a comprehensive system of two-year colleges. To do so, there must be a vastly increased understanding on the part of the general public and also more vocal support of the two-year colleges by the senior institutions in State University, for both the occupational and the transfer programs.

Enrollment projections for all types of colleges are usually made under certain *status quo* assumptions which can have the effect of creating obstacles to the development of new programs and functions. Growth is calculated in terms of increases in the gross number of high school graduates and in the general interest of young people in attending college. Budgets and building programs are then developed to fit the projections. However, in making projections there seldom is provision for a major breakthrough with a totally new concept of programming or function, or even a modest change in clientele to be served or program to be offered. In other words, enrollment projections tend to have a limiting effect on expansion of opportunity since they provide for rather carefully controlled growth, within existing programs and functions. This may force colleges to become dependent upon special grants from foundations or the federal government for demonstration projects, which sometimes become part of the regular curricular offerings and subsequent enrollment projections after the expiration of the grant. The obstacle in question is perhaps less real than imagined, but it may have served to inhibit the colleges in their creative planning for expansion. When growth has been controlled, priority has prudently been given to qualified applicants who are good risks in established programs.

Still another obstacle, the validity of which might be questioned, is the present support formula for community colleges under which the State, the local sponsor, and the student each contribute one-third. The ceiling on tuition of $300 which is charged resident students is believed by some to be a barrier to securing the level of fiscal support which is needed if the colleges are to become truly comprehensive. Liberal arts programs are less costly than the technologies. The last students to be admitted to a comprehensive institution — those who are ill-prepared, unmotivated toward particular goals, untalented in particular directions, and in need of good counseling, remediation, instruction, and placement in the world of work — are a very expensive group to educate, if the job is to be done well.

A Point of Departure

The Board of Regents and the governing boards of both State University and City University have affirmed their belief in the comprehensive two-year college as the best hope of society for extending educational opportunity to all high school graduates. Arguments could be marshalled to support the view that *all* college students should be served in two-year colleges in their home communities, before entering employment, a senior institution, or marriage and homemaking. However, such a proposal is so unrealistic as to be unworthy of argument at present. A case could also be made for the creation of one or more new types of institutions, *e.g.*, youth colleges for students with poor high school records, or for a more general programming authority with responsibility for securing appropriate opportunities for vocational training under whatever auspices were needed. However, the present strong commitment of the Boards to the community colleges mediates against these alternatives, unless there is evidence that the colleges are unable or unwilling to add necessary functions and programs. Therefore, attention will be focused on the question of service in the existing types of two-year colleges—the community and the agricultural and technical colleges—to the very large group of young people who do not now continue their formal education beyond high school.

3. The Manpower Situation

Introduction

Within a relatively short period of time the economy has moved from one of mild unemployment (which bordered on being critical in some urban areas) to one of a serious if perhaps transitory shortage of people to fill many types of jobs. A large part of the labor force, particularly young adults without training, may be under-employed but those without jobs now are for the most part unemployable because of physical disability or very major educational or social deficiencies. For those whose deficiencies can be remedied, there are a number of federally funded training programs for out-of-school youth under both the Economic Opportunity Act of 1964 and various Office of Education auspices. For many young adults, there is a shadow over the immediate future because of the uncertainty about military manpower requirements for South Vietnam. With the new G.I. Bill, countless young men thought to be without "college potential" view the military as an opportunity to obtain specialized training which they can build upon later as civilians. At the present time one is not inclined to predict a post-Vietnam revolution in higher education comparable in scope to that which followed World War II. However, it would be unwise to ignore present events and indications in assessing the need for expanding opportunity for higher education.

Manpower-labor force statistics are very complex. The choice of variables, bases for computing percentages, assumptions for making projections—all these tend to complicate the work of the educational planner who must use the statistics. There are at least three different approaches to a consideration of the manpower question in relation to educational planning which could be followed.

1. One approach is derived from a concern with the provision of opportunity for post-secondary education for all high school graduates, without regard to their availability for employment after such education. Not all graduates will want to take advantage of such opportunity immediately after high school. Some will seek education after employment experience, others (mostly women, and men entering military service) will take themselves out of the labor force after receiving training, at least temporarily. The problem is thus much larger than one of merely developing training opportunities for jobs at various levels, given a set of manpower projections and needs.

2. In another approach it is possible to work backward from studies of manpower requirements to student needs, particularly if the assumption is made that planning should focus on the need for continuing education for a majority of the labor force. Basic data for planning might then include levels (vocational, associate degree, baccalaureate degree, and the like) and types of training (formal in-school, on-the-job, cooperative work-study), projections of numbers of jobs to be filled by expansion or replacement, and sources of workers to fill the jobs (beginning workers or through upgrading, retraining, or promotion).

3. A compromise approach in the present situation might involve the logical determination of what functions and services the two-year colleges ought to be per-

forming in the total accommodation of high school graduates. Then, specific types of manpower data could be culled from the total matrix in order to make decisions about programs in these institutions. It is generally agreed that the community colleges should offer only those programs which are below the baccalaureate degree (or professional) level. The decisions which still need to be made concern the specificity of training to be offered, the role of general education in occupational programs, optimum length of training for various levels of jobs, the desirability of work experience in connection with training, and the like.

Several problems in the use of manpower data for educational planning should be noted. One which is of particular concern in the present context is the absence of speculation about entirely new types of jobs which will be required in the federal Great Society programs and elsewhere in the economy, *e.g.*, aides in the fields of health, social welfare, and education. The possible reorganization of service occupations also tends to be overlooked in projecting manpower needs, *e.g.*, groups of workers banding together to offer improved, specialized services. The mobility of workers in relation to the centers where they may receive occupational training is still another complicating factor in the expansion of educational opportunity. Labor shortages vary from city to city in both magnitude and types of vacancies to be filled. Industry moves; new types of industry come in as labor market and other economic conditions improve. Several states, among them South Carolina and Virginia, have developed technical education centers or institutes which are tied directly to the manpower needs of industry and the economy, generally. They are now moving toward more comprehensive two-year colleges which would serve a wide range of educational needs, but only after first being established to meet specific needs for trained manpower.

Finally, there is the danger of over-interpreting data on manpower trends and projections in a way which leaves large groups of high school graduates without a field or occupation for which to train. One of the best examples of this problem is provided by projections of increases in the technology-engineering area. The need for more technical workers in the next several decades has been very well publicized—in fact, the expected percentage increase is probably greater than for any other class of workers. Overlooked, however, are the statistics supplied by the Department of Labor which show that technical workers represent only 2.5 per cent of the employed labor force in New York State, that the addition of engineers and scientists brings the percentage up to only 5 per cent, and that the combined number ten years hence is expected to fall considerably short of 10 per cent of the employed labor force.[23] Since many technical workers are recruited from the ranks of employees at lower levels, after experience and some training for upgrading, the percentage of young adults in the population of high school graduates which can be trained in the science and engineering technologies is relatively small. Far more technicians will be required than are currently being produced by the two-year colleges but better means will have to be devised to attract good students to these programs and to retain them to graduation. With a rapidly changing economy, a very uncertain military situation, and the advent of vast new programs like Medicare, manpower projections are useful primarily as rough guides for educational planning. Computers are alleviating the old problem of obtaining recent projections and of revising them as conditions change but the instability of the present situation should not be underestimated in developing new programs.

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[23] *Technical Manpower in New York State, Volume I* (New York State Department of Labor, Division of Research and Statistics, December 1964), p. 10.

Manpower Distribution

A detailed analysis of the 1957 estimated labor force, together with projections for 1965 and 1970, is available for New York State.[24] One of the most provocative displays of data, in terms of its implications for post-secondary education, is the distribution of workers by level of occupation. The data are summarized in Table I. The largest gross percentage increases are expected to be at the professional and semi-professional levels. However, the combined levels are expected to account for only 13.6 per cent of the labor force in 1970. Furthermore, expansion of semi-professional jobs (as opposed to gross increases in number of workers) was expected to be only 6 per cent of the total expansion between 1957 and 1970. When the three factors—number of workers presently employed, expected increase in gross number of jobs, and net expansion of jobs to be filled—are considered jointly, the clerical and service occupations emerge as the two levels into which we may expect to feed the largest numbers of beginning workers in 1970, as is also true now. Workers classified as "operatives" now constitute the second largest occupational group, but increases are expected to be small. Educational planners thus have the dual job of insuring that there are enough collegiate programs to produce the required numbers of technicians, nurses, accountants, and other semi-professional workers at any given time, but also that there is a very broad range of occupational programs for the diverse group of high school graduates who may be expected to seek further education in an era of universal opportunity. The major task may become one of counsel-

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[24] *Projecting New York State Job Patterns: A Technical Supplement to "Jobs 1960-1970: The Changing Pattern in New York State"* (New York State Department of Labor, Division of Research and Statistics, January 1961). New analyses and projections are now being completed for publication in 1967.

*Table 1. Distribution of 1970 labor force (projected) by occupational level, with changes expected by 1970**

Occupational level	*1970 projections*		*Per cent change*		*Per cent of total expansion*
	(in thousands)	*per cent*	*1957-1965*	*1957-1970*	*1957-1970*
All occupations .	8,703.0	100.0	+11	+19	+100
Professional	955.6	11.0	+26	+43	+ 21
Semi-professional	228.4	2.6	+34	+55	+ 6
Managerial, official, proprietors	948.0	10.9	+11	+20	+ 11
Clerical and kindred	1,609.0	18.5	+14	+23	+ 22
Sales workers ...	683.0	7.8	+13	+21	+ 9
Craftsmen, foremen and kindred ..	1,083.0	12.4	+12	+20	+ 13
Operatives and kindred	1,541.0	17.7	+ 4	+ 7	+ 7
Service workers .	1,206.0	13.9	+14	+22	+ 16
Laborers	289.0	3.3	— 6	—10	— 2
Farm personnel .	160.0	1.8	—10	—18	— 3

* From *Projecting New York State Job Patterns, op. cit.*, Table 7 (pp. 45-50) and Table 9 (pp. 53-55).

ing students with limited aptitude for academic work away from the technologies and other semi-professional occupations, and into the less demanding but also less glamorous clerical and service areas. At the same time some young women may need to have their sights raised above the routine office jobs and service occupations which they now tend to choose.

The two industry groups which, together, now employ nearly half the labor force are wholesale and retail trade (24.5 per cent) and services and miscellaneous (21.0 per cent). These same groups also rank high in the rate of percentage growth expected by 1970. Their growth rates are exceeded by contract construction; finance, insurance, and real estate; public administration; and mining. However, these four groups combined employ less than 20 per cent of the labor force. In the manufacturing industry, growth in employment is expected to take place primarily in the production of durable goods, particularly electrical and other machinery. From the report on *Technical Manpower in New York State* it may be noted that manufacturing industries employ nearly 40 per cent of all persons in technical occupations.[25] Government at various levels employs another 14 per cent and approximately another 10 per cent each are employed by private medical services; research laboratories, architectural and engineering services; and transportation, communication, and public utilities. Interestingly, New York City alone employs 42 per cent of the technical workers in the State and the Nassau-Suffolk area an additional 15 per cent, but in the City these workers constitute only 1.8 per cent of the non-farm labor force.

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[25] *Op. cit.*, p. 4.

Education vs. Manpower Needs

There is no easy reconciliation of the problem of creating opportunities for occupational education for all high school graduates with that of gearing education and training to the requirements of beginning jobs. There is no real problem at the professional level demanding training through at least the baccalaureate degree. However, it is doubtful that even one-third of the present class of high school graduates will complete training at the baccalaureate degree level. At the technician level the training requirements are not self-evident. The survey conducted for the technical manpower study produced the somewhat discouraging finding that employers of 53 per cent of the technical workers in New York State did not require them to have completed any education beyond high school. At the other extreme, graduation from a four-year college was required of 8 per cent of the employed technicians. Only 21 per cent were employed in jobs which specified graduation from a two-year technical institute or community college. A companion finding is the expressed employer preference for experience over education, for the survey showed that three-fourths of those employed as technical workers were required to have some work experience as a condition for employment.[26] There are implications from these findings for the development of work-study and internship programs which could give the young students the work experience which prospective employers value and in some cases require.

An even greater dilemma is posed by statistics assembled by the State Department of Labor showing that jobs of high skill did not account for more than one-third of the employed labor force in New York in 1964, and probably will not exceed 38 per cent in 1975.[27] The grouping included professional, technical, and managerial personnel, together with skilled craftsmen. Furthermore, up to two-thirds of all jobs to be filled during the next decade, including both replacement and expansion needs, will not require post-secondary education or protracted job training. Most of the training for this large group could be done efficiently on the job since it involves rather specific skills or orientation which are taught without supporting general education courses. The statistics also show a very large expected increase in service occupations in the next decade—domestic workers, hospital attendants, waiters, janitors, and the like, for whom a special type of orientation training is needed.

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[26] *Technical Manpower, op. cit.,* pp. 5-6.

C. A. Pearce of the Department of Labor cautions strongly against the misuse of manpower information developed by his Division of Research and Statistics, particularly in trying to justify new training facilities. He contends that such data ". . . do not figure in any primary way in reaching conclusions concerning the need for educational facilities, but rather serve in a secondary role as points for checking other indications of need." On the other hand, he points up the usefulness of manpower data to guidance personnel in counseling young people about short- and long-range employment opportunities. Although Mr. Pearce's cautions were issued with the planners of the area vocational schools in mind, they also apply to the colleges as they plan the expansion of opportunity in vocational education.

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[27] C. A. Pearce, "Need for Manpower Information in the Field of Occupational Training and Education," address made at the Interstate Conference on Labor Statistics, University of Connecticut, June 15-18, 1965.

Manpower Training Programs

The approach taken in the Manpower Development and Training Act programs for out-of-school youth and adults has been to identify job vacancies in each community for which there is a shortage of trained personnel. Once a need has been certified, training programs are developed which are usually of several weeks or months duration, and in no case longer than two years. Unemployed persons who are available for training and eventual employment are then tested, counseled, and placed in programs, at the end of which they are given assistance in finding jobs. The emphasis is on training for specific jobs in which there are a sizeable number of vacancies, as determined by the Department of Labor surveys. The needs of individuals are taken into account only secondarily, in relation to the training slots to be filled. However, single job training programs have now been superseded to a large extent by skill centers where students or trainees receive intensive counseling, remedial instruction in communication and/or computing skills, a basic course in psychology, and, of course, job training to enable them to enter the job market at the highest possible level of skill. The new centers offer multi-skill training under one roof, often with several levels of training for particular types of jobs, *e.g.*, service station attendant-auto mechanic. Some of the other jobs for which large numbers are being trained are cashier, clerk-typist, electronic mechanic, grocery checker, key punch operator, machine operator (general), meat cutter, nurse aide, practical nurse, medical orderly, stenographer (including upgrading), typist and waiter-waitress.

The centers have become quasi-collegiate institutions offering specialized training and services resembling those offered by two-year colleges but without authorization for degree-credit work. The centers' standard term is 30 weeks, or about two semesters. However, if need can be demonstrated, students can be supported in programs up to two years in length. In New York State most of the centers and other Manpower Development and Training programs are under the supervision of local boards of education at present. Community college involvement has been minimal until now but interest in bidding on specific programs is increasing. In many cities separate centers have been funded for youth and adults. The intent of the federal legislation was to focus on unemployed persons with less than an eighth grade education. However, a recent analysis of the characteristics of about 19,000 trainees in New York State showed that a majority had a high school education or better and only 10 per cent had an eighth grade education or less. About half the trainees were found to be between 22 and 44 years of age and 38 per cent under 22.[28] Thus, the manpower centers are in a way a forerunner of attempts on the part of the educational establishment to extend opportunity for post-high school education to those most in need of occupational training but least able, academically. The centers are in all probability temporary solutions to a continuing problem and their absorption by

[28] Information contained in an inter-office memorandum prepared in the Office of Manpower Development of the New York State Department of Labor, February 8, 1966.

the public schools or colleges appears likely in due time, if the programs prove their worth while they are totally supported by the federal government.

Other Types of Programs

The Manpower Development and Training Act programs appear to be the most widespread attempt to offer systematic occupational training to out-of-school youth and adults, among the many recently created programs under various auspices. The Job Corps attracts still other young people who seek training in residential centers, while the Urban League, labor unions, and various civic agencies and organizations have developed smaller scale programs to help particular groups, very often urban disadvantaged youth. One of the most promising programs is Project SAVES which is administered by the Coordinating Council on Education for the Disadvantaged. It is in a sense a quasi-educational program for out-of-school youth and will probably merge in due time into one of the programs proposed by the City University of New York to extend opportunity to all high school graduates. There are currently plans for five centers in New York City to which graduates of the ghetto schools can go for counseling, tutoring, limited job training, placement in college or employment, and/or referral to other agencies or programs. The centers will be located in union headquarters in Harlem and other low income sections of the City. Their dual purpose is to prepare disadvantaged youth to qualify for admission to college (primarily the community colleges in New York City) and for jobs they could not handle without further training. The prospectus is an ambitious one which, if carried out fully, should do much to expand opportunity for young people most in need of assistance.

Brief mention should be made of a number of other types of training programs for out-of-school youth. Many of the programs have relatively long histories. The first is the specialized training provided by the Armed Forces, which has considerable transfer value to civilian life for servicemen in many types of support programs. A major investigation of the contribution of military training to civilian manpower needs is now being made, and it should have important implications for the establishment of appropriate educational opportunity for former servicemen.[29] At present only a small percentage of the new high school graduates are entering the military service through the draft or voluntary enlistment. However, exploratory discussions of the need to revise the present Selective Service law, and of the desirability of requiring some type of national service of all young people, may lead to major changes in the definition of need for post-secondary education.

Two types of programs which are somewhat more stable in their impact on post-secondary needs for occupational training are the apprenticeship programs and the curriculums offered by private trade and business schools. In 1965 there were 184 private trade schools in New York State (not including business schools), with nearly 200 programs and an estimated student capacity of about 20,000 at any one time. Programs were offered by 74 schools of beauty culture, 10 barber schools, nine schools for the garment trades, eight for flight instruction, eight for drafting, seven for dental-medical-laboratory technician training, three for commercial art, two for photography, and two for training in radio-television broadcasting. In addition to the trade schools there are 46 business schools which are registered with the State Education Department, with an estimated enrollment of nearly 12,000 students in day programs at the beginning of the 1965 school year. Several thousand more were accommodated in evening programs.[30] The business schools offer not only secretarial training to young women who seek it after high school graduation, but also training in key punching, data processing, business machines, and other skills for business and industry for both men and women.

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[29] The investigation is being made by Dr. Paul Weinstein at the University of Maryland.

Registered apprenticeship programs are confined for the most part to the craft occupations in which training in manual and artisan skills is stressed. Availability of apprenticeship training is regulated carefully by the unions, often with the effect of restricting opportunity for the kind of craft training desired by many young people, rather than being responsive to it. There are a limited number of apprenticeships for technical occupations and they enrolled fewer than 200 students at the end of 1963.[31] The programs which are offered are for laboratory technicians, draftsmen (mechanical, architectural, and electrical), and electronic and laboratory technicians. Slightly more than half the registered apprentices are in construction, with an average training period of about four years and a dropout rate of 31 per cent. Printing and metalworking crafts each account for slightly less than one-fifth of the apprentices, with dropout rates of 13 and 36 per cent, respectively. Fewer than 10 per cent of the apprenticeships are for jobs as mechanics and repairmen and the dropout rate in them is about half. The total number of registered apprentices in training is over 15,000, but it is estimated that the ratio of trainees in registered programs to those in unregistered programs is about 10 to 9. It is anticipated that only 13 per cent of the people who are needed to meet the replacement and expansion needs for qualified craftsmen between 1957 and 1970 will be graduated from training courses.[32]

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[30] The number of business schools which are not registered is probably more than 100. However, no current information about the total number or their enrollment capacity has been compiled for the state as a whole. Statistics for the registered business schools and the private trade schools were furnished by the staff in the Instructional Services Occupational Education Division of the State Education Department.

[31] Technical Manpower, *op. cit.*, p. 80.

On-the-job training is being given increased attention as the preferred pattern of occupational education of a large percentage of workers of all ages needing initial orientation to the job, upgrading, refresher training, and retraining when necessary. Experience with a number of out-of-plant programs has shown that many potential trainees are reluctant to take time from regular employment to improve their employability. In this time of plentiful employment, marginally qualified employees are particularly reluctant to leave their jobs for training for fear of being replaced in case of reduction in employment levels. New high school graduates of doubtful academic potential are also hesitant to undertake full-time occupational education after high school, even though the training period might be considerably shorter than would be required by work-study programs. New attendance patterns may well become dominant over the weekday, daytime, full-time programs traditionally offered by the schools and colleges to young high school graduates needing occupational training.

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[32] *Jobs 1960-1970, op. cit.*, p. 21.

High School Curriculum Trends

There appear to be somewhat conflicting trends in occupational education at the high school level, as the state approaches the goal of universal education through high school. On the one hand, the federal government has made available an unprecedented amount of money for occupational education at all levels and for all aspects of the program, from guidance to equipment and salaries, to research and evaluation. At the same time there are recommendations and some actual plans to postpone most vocational training (as opposed to orientation and guidance) until after high school. The recommendation was made most recently and authoritatively by the National Commission on Technology, Automation, and Economic Progress as follows:

> For most secondary school pupils, vocational training should be deferred until after high school. The high school should emphasize broad general education in language and literature, mathematics and science, history and social studies, and the arts. These subjects are an essential foundation not only for personal development and citizenship but also for most vocations. General education is especially necessary in a rapidly changing economy in which versatility and flexibility are at a premium. The training for many—perhaps most—specific jobs can and must be done on the job as a responsibility of the employer. However, there are some pupils whose greatest potential can be realized through occupational-vocational-technical education. Such education, with a parallel program of general

> education, can equip them with both job skills and a solid foundation for the adaptability necessary in a dynamic society. It can help implant the important understanding that education is a continuing process of self-renewal indispensable for continuing adaptability in a changing world. The design of occupational-vocational-technical education to achieve these purposes represents a significant challenge to the educational community.[33]

New York City schools, among others, have been a center of controversy in 1966 involving a proposal to abolish specialized high schools, including the vocational-technical schools, and to make all schools comprehensive. As such, the program in each school would include some orientation to occupational education which might include shop courses and the like. At the same time, a grant was made to the Board of Education by the Ford Foundation for the development of what is termed a correlated curriculum in the high school for the non-academic or general studies students. The proposed curriculum would provide exploratory courses in three areas of technology—business, health, and industry. Exploratory work in all three areas at the ninth and tenth grade levels would be followed by "technological" courses in one area of technology in the eleventh and twelfth years. The program would have the twin goals of providing marketable skills for students who terminate their education after the twelfth grade and preparing for further study those graduates who want to attend two-year colleges to continue their training. Careful articulation with community college programs in these three technologies is planned, and will of necessity be quite different from present arrangements involving admission standards and academic subject matter preparation.

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[33] *Technology and the American Economy, op. cit.*, p. 46.

The present vocational-technical high schools are in a sense a paradox. The technical graduates are excellently prepared for admission to associate or baccalaureate degree programs in engineering and the technologies, while the vocational graduates (if, indeed, they stay until graduation) are often ill prepared for either employment or further education. It has been widely charged that the vocational programs have provided a dumping ground for academic misfits and disadvantaged youth with behavior problems which are manifest in the junior high grades. The phenomenon is not new. It dates back to the early days of manual training and industrial arts, when youngsters who seemingly could not be taught to "use their heads" were diverted to programs to teach them to "work with their hands." The low status which tends to be accorded to modern vocational-technical education today is in part a reflection of this early instruction. Solution of the problem of overcoming the poor but persistent image of this sphere of instruction has scarcely been attempted as yet. The success of proposed efforts to do away with the vocational school as a dumping ground, and to bring about still another type of articulation between secondary and collegiate vocational education, remains to be seen. However, it is quite clear that steps must be taken both to provide post-secondary vocational education for large numbers of students and to avoid having these programs become new, graduate dumping grounds.

The effect of the postponement of occupational training on high school dropouts is difficult to predict from present indications of curriculum change. It might be hoped that the new high school programs, particularly the correlated curriculum approach, would prove more attractive to the employment-oriented student than the present vocational and general studies curricula. However, such students are also impatient with course work which has no apparent usefulness in employment. Recent statistics compiled in the State Education Department showed that only 69 of every 100 students who start high school in New York City actually are graduated. The holding power of the other major cities is also considerably below the state record of about 82 in 100 (with the big cities excluded). Changes in the high school program must then be assessed in terms of their likely effect on the dropout rate, as planning is done for the education and training of out-of-school urban youth who are beyond school age.

Prospectus

Manpower studies, like projections of college enrollments, tend to start from *status quo* assumptions and to rely on statistical techniques and ever more powerful computers to construct the future. The raw material includes such data as existing job types, industry groups, training facilities, age and sex distributions, and working conditions, from which trends, needs, and problems are extrapolated. The point is not to criticize but to ask how to speculate about the Great Society and its changing needs for personnel, educational opportunities, and a fuller life for its participants. Projections from base zero are difficult but a start must be made. Colleges now offer industrial technology, engineering-science technology, business technology, health technology, and a number of others applicable to our highly industrialized society. The future may require a new social service technology which will produce a new class of sub-professional aides for employment in the multiple programs for betterment in the new society — housing, education, enfranchisement, recreation, mental and physical health, and the provision of legal services to protect the rights of those who will participate.

4. Learning From Experience

Introduction

There is a considerable body of research findings and a vast pool of experience which could be drawn upon in planning the extension of opportunity for youth not now served by colleges and specialized schools. It can be said with some certainty that no other state system of higher education has yet been forced to address itself to the question, "After the community college, what?" Some states are only in the beginning stages of developing a system of public two-year colleges. Others are still attempting to test the community college as the preferred model for extending opportunity, either in a state-administered system or in locally controlled and financed institutions. Only a few states continue to depend upon extension centers or other university arrangements to provide what are essentially two-year college services. As the percentage of young people who are graduated from high school approaches 100 in the various states, the task of providing appropriate opportunities for *all* graduates becomes progressively more difficult. New York State has taken the bold step of attempting to assess and then meet the needs of the least able of the high school graduates — disadvantaged youth in urban areas with scant potential for baccalaureate degree programs. The point of view is taken that present two-year colleges, with State and local support, are only inching their way down the scale in providing opportunities for post-secondary education. To hasten the development of opportunity for all, New York State has committed new funds for new types of programs for those at the bottom of the ability scale, particularly the disadvantaged in urban areas. One step in this direction involves an examination of the experiences of others in order to find promising leads to new programs and to avoid repeating failure with this type of student.

The present chapter is cast as a potpourri of related studies and experience. A start will be made with a summary of studies of the employment patterns of out-of-school youth, both white and non-white, high school graduates and dropouts. Attention will then turn to the efforts of other states with accumulated experience in providing comprehensive programs. The programs of California junior colleges will be examined first, particularly those in Los Angeles and the new Peralta district in the Oakland area; then those in Illinois and Florida. Attention will be re-focused on New York State, with its specially devised pilot programs to help disadvantaged youth; its after-dark, self-supporting occupational programs in the two-year colleges; and present opportunity for admission to career programs in the two-year colleges which is available to graduates of vocational and general studies programs in high school.

Out-of-School Youth Enters the Labor Force

The Bureau of Labor Statistics of the United States Department of Labor surveyed out-of-school youth as part of the February 1963 monthly survey conducted by the Bureau of Census through its Current Population Survey. The sample involved young people between the ages 16 and 21 who were no longer in school, were not college graduates, in the Armed Forces, or in mental or correctional institutions at the time of the survey. Still another survey report based on annual averages was made for 1964.[34] From the Bureau of the Census interview sample of about 17,000 households in 357 parts of the country, it was estimated that there were more than three million high school dropouts in the age group studied in February 1963, or about 45 per cent of out-of-school youth under the age of 21. About 7 per cent had had some college and 48 per cent were high school graduates. One-fourth of the dropouts gave school-connected reasons for dropping out — lack of interest in studies, poor grades, or trouble with school officials. About one-fourth gave economic reasons, *i.e.*, employment or income factors.

Interviewers found that non-white high school graduates had the most trouble finding jobs after leaving school. They were less likely to have jobs waiting for them than other sub-groups of out-of-school youth and they took about as long as the dropouts to find work. The report suggested that non-white graduates were reluctant to accept jobs which could as easily be performed by dropouts and thus remained unemployed for some time. Despite the difficulty encountered by certain sub-groups, a majority of the total sample found employment within four weeks after they began looking. Thirteen per cent took as much as 15 weeks to find work and another 13 per cent was still without work in the month of February. Nearly one-third of those interviewed had jobs waiting for them when they left school and more than one-half began looking for work soon after leaving. The employment experience of this type of youth in the months following high school graduation has implications for the planning of expanded opportunity for post-secondary education.

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[34] V. C. [illegible]ella and F. A. Bogan, *Out-of-School Youth, February 1963*, Special Labor Force Report No. 46, Part I of a Study of Young People No Longer in School — Their Education, Reasons for Leaving School, and Labor Force Status (Washington, D. C.: United States Department of Labor, Monthly Labor Review, November, 1964).

Thomas E. Swanstrom, *Out-of-School Youth, February 1963*, Special Labor Force Report No. 47, Part II (Washington, D. C.: United States Department of Labor, Monthly Labor Review, December 1964).

Harvey R. Hamel, *Labor Force Status of Youth, 1964*, Special Labor Force Report No. 56 (Washington, D. C.: United States Department of Labor Monthly Labor Review, August 1965).

Differences between male graduates and dropouts with respect to finding employment, types of jobs held, and wages were less sharp than one would expect. Differences between white and non-white young adults were somewhat startling in that non-white male graduates were not appreciably better off in the labor force than the white dropouts. The situation differed markedly for men and women in the various sub-groups. However, the summary will focus on the male group in the interest of brevity, because of the many women who did not seek employment after leaving high school.

Only 8 per cent of the young out-of-school males were not in the labor force in January 1963 when the survey was made. About one-half were school dropouts and one in five was non-white. About two-thirds of those who were not in the labor force were taking job-training, waiting to go into the Armed Forces or unable to work. Most of those who were working had found full-time employment by direct application or through friends or family. Relatively few depended on referrals by their school or an employment agency. About two-thirds of the men found their first full-time jobs as blue-collar workers. The experience of the dropouts was like that of the graduates with regard to the percentage in blue-collar occupations although, as might be expected, fewer of the remaining dropouts than graduates found white-collar jobs. The experience of graduates and dropouts with vocational course work is of some interest although the implications for expanding post-secondary education are not at all clear:

> Among high school graduates who had taken vocational courses in school, unemployment rates were appreciably lower for those who also had postschool training, as apprentices, in special schools, or elsewhere. For youths who had completed elementary school but had dropped out of high school, training—whether taken in vocational courses in high school or subsequently—did not appear to have any significant effect on lowering unemployment rates.[35]

More encouraging is the response of the unemployed youth to questions about mobility. Three-fifths of the group expressed their willingness to take employment in another part of the country, at whatever minimum salary they had specified in answer to an earlier question.[36]

An understanding of the employment experiences of out-of-school youth for whom no opportunity for college now exists is undoubtedly critical to effective planning of expanded opportunity for post-secondary, employment-oriented education. The success of young male adults in finding employment, even three years ago, provides some grounds for caution in acting on the assumption that this group is available (and eager) for full-time study after leaving high school. The findings also support the principle that the attention given to dropouts in planning the extension of post-secondary opportunity should not be appreciably less than that given graduates. Finally, the findings call attention once again to the plight of the non-white graduate (or drop-out) with only average or below-average training. The male white graduate can take care of himself in the manpower struggle in securing initial employment and in bettering himself through upgrading, changing jobs, and/or promotion. However, the non-white graduate is the one most likely to be underemployed. Since he is scarcely better off than the dropout, it may be difficult to convince him of the advantages of post-secondary training which does not lead to a profession.

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[35] Perrella and Bogan, *op cit.*, p. 1265.

[36] However, there is no behavioral evidence that these young people would in fact accept employment which necessitated moving from their present location. The study reports only their expressed attitudes.

And in California . . .

California now has what is without doubt the most extensive and at the same time comprehensive system of higher education of any of the 50 states, not the least impressive part of which is its nearly 80 community colleges. California offers opportunity for college admission to all of its high school graduates and also to dropouts at least 18 years of age who can profit from programs in the two-year colleges. If it has still failed to achieve universal opportunity for higher education, much of the blame may be placed on the counseling given students as they progress through the public schools, and on articulation between high school and college. Counseling (or a lack of it) leads some students to choose inappropriate courses of study or educational goals. Other students fail to see the inherent attractiveness of the occupational, non-transferable programs in the community colleges. At least until recently, the policy of open-door admissions to the community colleges has in effect given high school graduates access to college and the opportunity to qualify for admission to a broad spectrum of programs, either at entrance or after some remediation.

New York State and California can be contrasted with respect to the educational mission assigned to the public two-year colleges in each state. While both subscribe to the general principle of comprehensiveness, New York State has singled out "technical education relating to the occupational needs of the community or area in which the college is located and those of the state and nation generally" for first priority in the community college law.[37] The liberal arts transfer function is relegated to a sub-section, as follows: "However, such colleges shall nevertheless provide sufficient general education to enable qualified students who so desire to transfer after completion of the community college program to institutions providing regular four-year courses. . . ."[38] No specific reference is made to programs of less than two years in length or to the continuing education function, except as follows: "Special courses and extension work may be provided for part-time students." California junior colleges, on the other hand, have a mandate to provide a full spectrum of programs and services to out-of-school youth and adults, the only limitation being that the programs should be at the thirteenth and fourteenth grade levels, *i.e.*, not to exceed the second year beyond high school in length or level. While the liberal arts transfer programs have been among the first to be offered by new junior colleges, both lay and professional leaders have insisted that a full range of services be offered within a short time after opening—technical, vocational, remedial, continuing education, cultural and avocational, as well as liberal arts and general education.

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[37] Article 126, Section 6303, New York State Education Law.

[38] *Ibid.*, Section 6303G.

The trend in the California colleges appears to be toward comprehensive campuses in multiple-college urban systems (or districts). In the Los Angeles Junior College District, for example, Metropolitan, Trade-Technical, and Pierce Colleges were all formerly special-purpose campuses. Metropolitan had a special mission in the field of business training, Trade-Tech in a variety of vocations, and Pierce in agriculture. Similarly, in the Peralta Junior College District in which the city of Oakland is located, Laney College was developed as a trade-technical school while Merritt College offered liberal arts, transfer, and associate degree programs one year after its establishment as a campus of what was then the Oakland City College. Recently, the Trustees decided that both colleges (and the several new ones to be established) should offer comprehensive programs. There are arguments both for and against specialized colleges (or campuses) in multiple-college districts in the urban areas. Proponents argue that liberal arts programs tend to cannibalize the vocational-technical programs, as special-purpose colleges move toward comprehensiveness. Opponents, *i.e.*, those who favor general purpose, comprehensive campuses, take the widely acclaimed comprehensive high school as their model and cite the increased advantage to the student with uncertain potential of having a full spectrum of programs available to him on a single campus. The problem of the relative status accorded the vocational-technical programs under the two conditions of specialized and general-purpose campuses is unresolved in California, as elsewhere, but the trend toward comprehensiveness appears unmistakable.

Taken as a whole, the several colleges of the Los Angeles Junior College District offer as full a range of programs and services as any city system is likely to achieve within several decades. In addition to the liberal arts and other transfer programs, the District colleges offer three types of occupational curricula: two-year programs leading to the associate degree, one-year training programs, and special programs such as those related to instruction for apprentices. More than 200 different occupational curricula are offered at one or more of the seven present colleges, many of which can lead to skilled employment after less than two years of study. A partial list of titles is the following: accounting, agriculture, air conditioning engineering, aircraft, apparel, auto mechanics, automation, baking, broadcasting-telecasting, business, business machines, ceramic engineering, construction, cooking, cosmetology, dental assistants, drafting, electricity, electro-mechanical, electronics, engine technology, engineering, fire science, flower shop management, graphic arts, heavy truck and diesel, linguistic receptionist, machine tools, manufacturing technician, medical record technician, metallurgical technician, nursery school, nursing (R.N.), ophthalmic optics, petroleum refining, photography, plastics technician, police science, printing, sanitation, secretarial, sign painting, social welfare aide, stage management, surveying, technical illustration, theatre arts, tool engineering, upholstering, vocational nursing, welding, and X-ray technol-

ogy. A student pursuing the lower division portion of baccalaureate degree programs may complete the general education requirements of any of the many four-year institutions to which he may transfer and, in addition, may select his major field and enroll in some first level courses. In the Los Angeles system, a number of short-term, single skill courses are offered under the federal Manpower Training and Development Act. Other self-contained instructional units requiring no supporting courses or services, which are less than one semester in length, are offered by the public schools in their evening, adult education programs. An example is the training of wrappers of packages—often housewives seeking pre-holiday employment in large department stores.[39]

At the Laney College campus in Oakland students may pursue programs in cosmetology, upholstery, drycleaning, commercial food preparation and services, vocational housekeeping, and other service areas. They may limit their study to the necessary specialized and supporting courses, or they may elect to take additional courses to satisfy general education requirements which will then qualify them for an associate degree. Students may plan what could be called an up-side down curriculum in the sense that specialized courses are taken first, then general education courses and electives to round out the degree program. The Oakland (Peralta District) colleges also offer business training for which certificates of employment are awarded upon the attainment of certain levels of skill in business machines, record keeping, computation, and the like. The certificates serve as college recommendations for particular types of jobs and imply achievement at a level meriting at least a grade of "B."

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[39] Placement of both the adult education and junior college programs under a single associate superintendent for the Los Angeles City Schools insures some coordination in the offering of short-term training to out-of-school youth and adults.

California junior colleges provide a strong curricular contrast for the State University two-year colleges. The latter are characterized by a rather limited range of associate degree programs in the industrial, engineering-science, business, and health technologies and in what is designated as "liberal arts-transfer," offered almost exclusively to full-time day students. In the California colleges, lines between what is transfer and terminal, vocational and technical, are light and flexible. California junior colleges appear to be more responsive to student needs, expectations, interests, abilities, and life styles than the New York State colleges which are attuned to manpower needs, accreditation of specialized curricula, and, to a considerable extent, the traditional image of college and higher education.

Illinois on the Move

The junior college movement in Illinois was given new vitality by the 1964 Master Plan for Higher Education in Illinois.[40] Among the many recommendations which have been implemented since its adoption is the creation of a new state system of junior colleges, locally initiated and administered but under the general supervision of a state Junior College Board. The new system is separate from the common school system. Provision is made for existing junior colleges to become part of the new system under certain stated conditions. In addition to the recommendations concerning organization and administration, the Master Plan included two important ones concerning programs in the two-year colleges. The first involves a vast increase in the "number and variety of technical and semi-technical programs leading directly to employment." The second recommendation pertains to the development of experimental programs for what is called the "under-educated student of post high school age," to help him get ready for either transfer to a senior institution or employment in a skilled occupation.

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[40] *A Master Plan for Higher Education in Illinois* (Springfield: Board of Higher Education, July, 1964).

The intent of the Legislature and the Board of Higher Education is that new junior colleges which come into existence subsequent to the Master Plan be fully comprehensive institutions. In addition to transfer programs to prepare students for junior standing at four-year institutions, the colleges are expected to offer a wide range of occupational, semi-technical, and general education courses, some for credit and others without credit. Adult and continuing education programs are also to be offered both for credit and without it. According to the Executive Director of the Board:

> Some of the programs might normally be offered by a large vocational high school or technical institute but are nevertheless put at the college level in order to be attractive for students beyond 18 years of age. Older youth will not go back to an institution called a high school or one with a name connoting less than college standing.
>
> The new junior colleges that have come in existence during the last few months and all those being planned will have all these programs. The review which our Board gives all junior colleges before they can qualify for the additional state aid under the Master Plan requires that the institution have a com-

> prehensive program. We intend that the quality of the programs be high but at the same time appropriate to the level of students which can be admitted to them. The junior colleges will have an open-door policy and they will offer remedial type courses for the 'under educated,' in order to prepare them for entrance into the college transfer programs. We anticipate that the general quality of the student in the transfer program, particularly the second year, will be about equivalent to the same student at the sophomore year in the state universities. It is our hope that those that cannot succeed in college transfer will be properly counseled and steered into the appropriate occupational type curriculum.
>
> This diversity of types of programs and the different kind of students which might enter each present a formidable problem for junior college administrators. We do not think, however, that it is an impossible one. We are hopeful that we can succeed here . . . in directing a large proportion of lower half students into the occupational curriculums and seeing that they complete a sufficient number of courses to make them eligible for skilled employment.[41]

By mid-1966 the number of colleges which had been accorded Class I status by the Board was 16, about half of them new institutions. The number is expected to double by the end of the year. As part of the approval process for new institutions or for granting Class I status to reorganized junior colleges, the Board of Higher Education is empowered to make a determination of compliance with the requirement of comprehensiveness of program, including the specification that at least 15 per cent of all courses be in fields leading directly to employment, one-half of them in fields other than business education.[42] The Board is making a strong effort, additionally, to make the colleges truly commuter-type institutions serving a minimum of 1,000 students each. The task of judging comprehensiveness is, of course, far more difficult than establishing criteria for enrollment and assessed valuation potentials. However, the Board has succeeded in its insistence that colleges seeking Class I status present evidence of comprehensiveness, particularly in the offering of programs for students who will terminate their formal education in the junior college.

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[41] Personal communication from Dr. Lyman A. Glenny, dated January 11, 1966.

Florida Provides Opportunity

Florida ranks high among the 50 states in the percentage of young people who continue their education after high school. The Florida system of higher education is among the most comprehensive in the nation. Much of the credit for this comprehensiveness may be attributed to the development of its system of two-year colleges in the last decade. In 1957 the Florida State Board of Education adopted a long-range plan to provide post-secondary educational opportunities which would be within commuting distance of 99 per cent of the state's population. In the Fall of 1966, Florida's 25 community colleges, some of them multiple-campus institutions, will enroll almost 95,000 students. With 85 per cent of the population now within commuting distance of a community college, the completion of the long-range plan is in sight. Florida's total commitment to the public community college for the achievement of this plan and its very workable balance of local control with state coordination has caused it to become, in nine years, a model which has received attention throughout the nation.

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[42] Illinois Public Junior College Act, Article I, Section 101-2 (g). Program specifications are also contained in the "Regulations for Approval of Junior Colleges as Class I Institutions" (Board of Higher Education, January 4, 1966) and "Standards and Criteria for the Evaluation and Recognition of the Illinois Public Junior Colleges" (Illinois Junior College Board, January 28, 1966).

Today Florida ranks third in community college enrollment, exceeded only by California and New York. Florida's community colleges are generally more comprehensive in their curricular offerings than the New York State two-year colleges and although they have not reached the degree of comprehensiveness of the older institutions in California, they have achieved a greater degree of coordination and communication with each other and with the total state university system. The Division of Community Junior Colleges in the State Department of Education is responsible for this coordination, which has been a key factor in the smooth and rapid expansion of the community college system in Florida.

Miami-Dade Junior College, with a Fall 1966 enrollment in excess of 20,000, has proved to be one of the fastest growing colleges in the history of higher education. In addition to providing lower division programs for students intending to transfer to other colleges and universities, Miami-Dade has developed an extensive range of technical-vocational and semi-professional courses. The 52 programs in the technical-vocational division range from kindergarten management to mortuary science. The offerings include such courses as hotel-motel and food service management, aerospace technology, pilot training, data processing, fashion design, fashion modeling, civil engineering, electronics and instrument technology, gas energy technology, graphic arts, nursing, medical technology, municipal public administration, police science, radio-television broadcasting technology, and a great variety of business administration and office career programs. Miami-Dade and St. Petersburg junior colleges are the most comprehensive of the Florida institutions, offering opportunity for all types of people—the disadvantaged and the gifted as well. In these institutions future doctoral degree students begin their college work; highly skilled technicians learn their trade; high school dropouts make a comeback; and the functionally illiterate learn rudimentary reading and writing skills. The guided studies programs at Miami-Dade and St. Petersburg are designed specifically for those students who still can benefit from more education but are not yet capable of doing traditional college level work. The success of these programs in salvaging dropouts and in bringing a higher level of literacy to the educationally disadvantaged has caused other two-year colleges to develop similar programs.

Florida still has a way to go before all the community colleges attain true comprehensiveness. However, with the prevailing philosophy that the community college is higher education's answer to the plea for education of disadvantaged youth, continued progress in this direction may be expected.

Innovation in the Two-Year Colleges

A number of promising pilot projects designed to extend educational opportunity to young people not now served are in various stages of accomplishment in several two-year colleges in New York State in mid-1966.[43] One of the most successful of these is the College Discovery Program, a City University project which was modeled after the Bronx Community College "Operation Second Chance" program of the early 1960's.[44] With funds provided by the State Legislature, the several community colleges in New York City have been admitting a group of disadvantaged high school seniors each year who have been nominated by their principals as deserving of the special opportunity offered. A major feature of the program (in addition to the nomination technique for identifying applicants) is the special instruction and guidance given the students—initially in the summer session before the first regular term, and then when they are merged with the regular student body. The special assistance they are given may include counseling, tutoring, and financial aid, to help put them on a par with other students. The program is designed for those who wish to enter a liberal arts curriculum leading to a baccalaureate degree, rather than an occupational curriculum. The program is being evaluated in depth by the Social Dynamics Institute of the City College, as a third group of students is about to enter the program.[45]

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[43] These are in addition to the new urban college centers which were funded by the 1966 Legislature, which are in the planning stage.

[44] The practice of giving promising applicants who do not meet regular college admission standards a chance to demonstrate their ability is not new, of course, except perhaps in its application to the disadvantaged in New York City under carefully controlled conditions.

[45] The program is described in the *City University Master Plan of 1964, op. cit.*, "An Experimental Five-Year Program for High School Graduates," pp. 48-52.

Borough of Manhattan Community College has been characterized since its inception in 1964 by its several innovative programs for disadvantaged youth and other urban students with special needs. Capitalizing upon its mid-Manhattan location, the College has instituted an extensive Cooperative Education Program which enables its many business students to gain valuable supervised work experience in reputable business organizations, agencies, and department stores. "Earn while you learn" is more than a slogan at the College for many students obtain their first professional placement as a result of their participation in the work-study program.[46] Other special projects at the College involving fewer students but worthy of note are:

1. The Urban League project to train disadvantaged young women to a level of proficiency in secretarial skills within three months which enables them to obtain entrance jobs with industry, after which further training in the evening is given for a period of six months;

2. The Mobilization for Youth program in which small numbers of socially and economically deprived youth are prepared for college and supported by various services after entrance; and

3. Various cooperative endeavors involving faculty, staff, and regularly enrolled students in the extension of their academic and other resources to disadvantaged youth who have undeveloped potential for college work.

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[46] This type of programming is also not new to higher education. It was pioneered at Antioch College in Ohio and Berea College in Kentucky and in recent years has been offered by quite diverse types of institutions.

"Operation Giant Step" was launched at the Bronx Community College in the Spring of 1966, with a planning grant from the United States Office of Education preparatory to the initiation of a full-scale research and training program in industrial technology. Recruitment of students for the experimental program will take place among disadvantaged youth who are high school seniors. The unique and promising features of the program include: (1) a so-called vestibule year (pre-industrial technology) in which remedial and basic instruction is organized in four-week modular units; (2) successive exit points leading to gainful employment at various levels of skill or professionalization; (3) mobility from the vocational to the technical level, or on to the professional (baccalaureate) level in engineering for the most able students; and (4) an inverted curriculum with an increasing proportion of general education as the student progresses through his degree program. Research, follow-up, evaluation, and dissemination are all incorporated into the six-year project for which funds have been requested.

Two major projects are being planned for upstate New York which contrast quite strongly with the City University programs. The first involves a planning grant from the Office of Education to the State University College at Plattsburgh, leading to the establishment of an experimental community college with a vocational-technical emphasis. The major experimental feature of the new college will be the merging of a local, rural, predominantly white student body with a specially selected group of disadvantaged students from New York City who will be brought to Plattsburgh to live while attending college. Students will be selected for admission who can expect to succeed in the occupational programs which will be offered. However, the effectiveness of the college will also be evaluated in terms of its ability to meet the needs of disadvantaged urban youth who are transplanted to a rural environment in the same programs which serve local, rural students. It is to be an experiment in integrated group living, on the campus and in the community at large, as well as an innovative approach to occupational education. Still another unique feature of the project is the opportunity to explore the complementary roles which may be developed by public two- and four-year colleges which are located in the same community.[47]

The second new upstate program is less experimental than innovative, and less directed at the economically disadvantaged than at other young people for whom no suitable educational opportunity now exists at the post-secondary level. The Agricultural and Technical College at Alfred has recently been given approval by the State University Trustees to establish an off-campus center at Wellsville at which vocational, certificate programs will be offered to high school graduates whose interests, abilities, or both, are unsuited to present degree programs. This is the first such center to be established by a State University college and its approval represents a rather major breakthrough by the Trustees in their policy of extending educational opportunity. The students at the center will be regarded as an integral part of the student body of the College and the faculty will be members of the State University system, although they will not have professorial rank. A special summer program of testing, diagnosis, and counseling will be established to increase the students' likelihood of success. Establishment of the center at some distance from the campus is an accident of space limitations, rather than a deliberate attempt to isolate the vocational students and staff who are in non-degree programs. A night program related to the manpower needs of area industries will be developed to complement the day courses for new high school graduates.

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[47] The community college is expected to open in the Fall of 1967, at the completion of the planning project.

Attention has been called to only a limited number of new programs through which State and City two-year colleges are attempting to extend educational opportunity to youth not now served. Project Upward Bound under the Economic Opportunity Act will also enable many colleges to help disadvantaged youth while they are still in high school. Other opportunities for work-study programs are now available to needy students through the Economic Opportunity and the Vocational Education Acts, both of which should enable the emerging community colleges to move forward with innovative programs.

Under the Cover of Dark

An inquiry was made into the courses, programs, and services offered by the evening and extension divisions of the two-year colleges of the State University, to learn the extent to which youth without "college potential" might be served in this way. Regular day programs in the colleges, under the three-way shared support formula, are generally confined to approved associate degree curricula. However, there are no real limits to what an enterprising dean of an evening division could create in the way of program, except his ability to make it self-supporting. Traditionally, the evening program has offered opportunities in courses which parallel the regular daytime offerings, to students who cannot enroll in full-time day programs or who do not qualify initially for matriculation in such programs. The evening and extension division has also served as an umbrella for various types of non-credit offerings, including much of what is regarded as adult education for both vocational and avocational purposes. In order to find out what the programs do indeed encompass, a request was directed to the colleges to furnish lists of courses, seminars, workshops, and other types of services offered in their evening-extension divisions.

The returns present a very heterogeneous and somewhat unpromising picture. Almost every level and type of program appears somewhere in the composite picture, from basic welding to university extension courses in public administration, and including remedial English and mathematics, oil and watercolor painting, and guided farm tours for school children. There is little patterning in the programs except for the rather general availability in the evening of courses carrying college credit in the career fields, particularly in business. Certificate or diploma programs, apprenticeship-related instruction, and preparation for State licensing examinations are offered by a few institutions, usually to relatively small numbers of students. Farmingdale and Canton, among the agricultural and technical colleges, and Erie County Technical Institute and Hudson Valley, among the community colleges, appear to offer by far the most extensive programs of vocational training—albeit at night—from which the low ranking high school graduates could profit. At Farmingdale certificate programs are now offered by the evening division in 13 areas. More than 100 courses are offered in advertising art, aeronautics, agriculture, air conditioning and refrigeration, automotive technology, entomology (for pest control operators), real estate, construction, electronics, and mechanical technology, together with courses in supporting sciences and mathematics. These may be taken singly (without degree credit) or as part of a certificate program. The program at Canton is necessarily more limited in scope but includes training in basic welding, refrigeration and air conditioning, fundamentals of electricity, ignition service and auto diagnosis, and blueprint reading for the construction trades.

Erie County Technical Institute and Hudson Valley Community College are both located in urban areas where there is a large segment of the high school graduate population which might profit from occupational training below the technical level. Both institutions are making a promising beginning in the extension of a new type of educational opportunity to youth whose talents do not lend themselves to the degree programs offered in the regular day sessions. Erie County now offers diploma programs in the following occupational fields as part of its evening divisions: architectural drawing, building estimating and construction, and structural design; electrical power and electronics; heating and air conditioning; industrial chemistry; industrial instrumentation; basic engineering science, production planning, tool design, and machine design; metallurgy; and medical office practice. The programs vary widely in their intellectual demands but they have in common a very close tie to employment which is uncluttered by general education requirements. At Hudson Valley occupational training is given in the evening session in blueprint reading, computer programming, dental assisting, electricity, fire service management, machine tools, oil burner service and repair, refrigeration, and a number of other fields.

There appear to be real obstacles to bringing these and other non-degree programs over into the regular day session. For the colleges concerned, the obstacles include space limitations, budget restrictions, and shortages of qualified teaching staff. Students who enroll in such programs are denied the usual financial aid awards and at the same time are often required to pay proportionately more for their instruction than regularly enrolled day students. They are often deprived of counseling and other services because they must take their training at night. The programs now tend to enroll employed adults who are not available for daytime instruction. However, if youth is to be served, attempts will have to be made to adapt these and other occupationally oriented programs to a different set of conditions, *e.g.*, the level of maturity of the learner, optimal time and pace of instruction, and the need for supervised work experience.

Quality vs. Type of Preparation for College Admission

An extensive study was made in 1965-66 of current opportunities which are available to high school graduates of occupational programs for further education in the two-year colleges.[48] A visit was made to each public and private college or institute in New York State which offered at least one full-time associate degree program preparing for occupational entry. Sixty-five such institutions were identified, including the six agricultural and technical colleges and 28 community colleges under State University supervision. Master lists of occupational curricula were prepared which were used in interviews with admissions officers and other interested personnel at the colleges. Furthermore, high school transcripts for graduates of occupational programs were prepared for use in the interviews with admissions officers, which they were requested to evaluate and comment upon with reference to admission to specific collegiate programs. The major types of information sought in the interviews are:

1. Additional high school academic units required beyond the State-mandated minimum for graduation, in order to be considered for admission;

2. Number of 1965 freshmen admitted who had pursued occupational high school programs;

3. Factors which take priority in each college's admissions considerations;

4. Consideration given to applicants presenting only the minimum State-mandated academic units, if space is available and applicants appear to meet whatever other standards are set;

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[48] *Educational Opportunities for the Secondary Occupational Program Graduate: A Study of Unit Admission Requirements to Two-Year Degree and Diploma Programs in New York State Colleges* (Albany: University of the State of New York, The State Education Department, Bureau of Research in Occupational Education, February, 1966).

5. Opportunities for removing subject-matter deficiencies in high school preparation, including remedial courses offered by the college (with and without credit);

6. Exceptions which are made to subject-matter requirements when candidates present otherwise strong records;

7. Effect of level or ability grouping in high school courses on applicants' probability of consideration for admission;

8. Expected changes or trends in the availability of opportunity for high school graduates in business, agriculture, home economics, industrial arts, and trade-technical programs.

Certain assumptions were made in the design of the study which need to be kept in mind in evaluating the findings. The first is that only occupational programs leading to two-year degrees or diplomas were appropriate to study. Stated another way, the assumption was made that graduates from high school occupational programs should be interested in further education only in the same field of study, not in liberal arts. The assumption ignores the problem of poor or inadequate guidance early in high school which might have led the student with latent academic potential into the wrong program. The second assumption is that there was no need to study the problem of quality in applicants with inappropriate high school preparation, the alternative assumption being that such applicants should "meet or exceed" other standards for admission—test scores, grades, recommendations, and other requirements. A final assumption was made—perhaps tacitly—that existing types of associate degree programs are sufficient to the need for opportunity for post high school education at the sub-professional level. In other words, no attempt is made to assess opportunities in other types of programs which are (or perhaps should be) offered by the colleges.[49]

Findings from the Study

The study findings do not show whether a problem truly exists with respect to opportunities for high school graduates of occupational curricula to continue their education. Admissions officers responsible for evaluating such candidates were generally unable to say how many were accepted or rejected in the last admissions cycle. From other reports it is known that about 20 per cent of the high school graduates of federally funded vocational programs continued their education in 1964, not including graduates of office occupations programs. This was a slight decline from 1963-64 but still appears to represent a sizeable group.[50] The study produced the more tangible finding that none of the colleges reported that they placed prime emphasis on subject-matter preparation in evaluating applicants for admission. A high level of achievement in whatever subjects the applicant attempted, together with academic potential for college, was regarded as more important than an exact adherence to academic unit requirements. Three community colleges and nine private institutions reported that they would not give consideration to applicants presenting only the State-mandated minimum units (four in English, three or four in social studies, one in science, and one in mathematics). The finding that three public institutions refused to consider the minimally prepared applicants gives no cause for alarm since they constitute only a small percentage of the total opportunity available in associate degree programs in colleges under the supervision of State University.

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[49] The high school preparation which graduates of occupational programs now lack is related in large part to the liberal arts contents of the collegiate programs. To the extent that this is true, still another question is whether these same graduates are adequately prepared to undertake the occupational portion of associate degree programs.

[50] *Follow-up of Graduates of Federally Funded Vocational Programs* (Report of the Office of Vocational Instructional Services to the Federal Government, June, 1964, and June, 1965).

No summary was made in the report of the information obtained from the 62 institutions concerning the academic units required for admission to their 450 curricula. However, a cursory analysis of the arrays of requirements presented shows that about 150 (or nearly half) of the curricula in the upstate colleges specify only the nine State-mandated academic units, with elementary algebra required as the mathematics unit in some cases. The community colleges appear to be more liberal in their specification of subject-matter preparation than private institutions and the agricultural and technical colleges. A tenth unit—usually elementary algebra—is required in about 20 per cent of the curricula but in fewer than 5 per cent are as many as 13 academic units specified as preparation. Almost none of the institutions require that applicants have studied a foreign language in high school and only one curriculum was noted in which both physics and chemistry are required. In many cases the recommendation is made that a laboratory science be taken in addition to the general science course but biology is accepted in about as many cases as physics and chemistry.

The community colleges in New York City present a somewhat lenient but also confusing pattern of required high school preparation, even when differences in degree programs are taken into account. Differences in required preparation among the seven institutions (including Fashion Institute of Technology) are large but each college tends to require fairly common preparation for all curricula. For example, Queensborough Community College specifies only five units of preparation for all curricula—four of English and one of social studies—while Borough of Manhattan Community College specifies 10½ units for all, including two units of language and two of mathematics (one unspecified course plus elementary algebra). Kingsborough Community College specifies nine units for all but one curriculum, including both elementary algebra and intermediate algebra (or plane geometry). Science of any kind is required in only a few curricula offered by the colleges in New York City, according to the survey data.[51] Differences among the private institutions offering two-year programs in the City are also large but tend to reflect their differing orientations, *e.g.*, Voorhees Technical Institute (seven specified units) and Packer Collegiate Institute (13 or 14, depending on whether one or two foreign languages are studied). The differing patterns of required preparation, while not onerous in their demands, suggest that students in occupational programs must make early decisions in high school concerning their plans for further education, if they are to meet the subject-matter requirements for admission to some of the colleges.

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[51] The whole high school organizational structure under the New York City Board of Education is, of course, different from much of the rest of the state. For this reason, required preparation for admission to the community colleges in the City may seem to differ from that required by upstate institutions, when in fact it is reflecting only differences in the organization of the secondary schools in the two parts of the state.

Since it cannot be assumed that all or even most graduates of occupational programs would have the required preparation for college, an important focus of the inquiry was the means by which applicants could remedy subject-matter deficiencies, assuming they met other qualifications for admission. Two questions were asked—one involving "method" and the second concerning types of remedial courses. There is an apparent discrepancy in some of the responses by the colleges. While nearly two-thirds of the colleges reported one or more means for remedying subject-matter deficiencies, the specific course which was reported most frequently was English (including reading and writing) which is the one area where college requirements and State-mandated units are in agreement. Mathematics courses ranked second in frequency and science courses third. It seems probable that the mathematics courses, like the English, are generally remedial both for students who lack certain high school courses and for those whose quality of preparation, as revealed by test scores, is insufficient for them to enroll in more advanced courses in mathematics. Most of the institutions offering some type of remedial program did so in special courses in their day or summer sessions. Only four used their evening division for this purpose. Pre-technical programs ranging in length from a summer session to a full year were offered by several institutions.

The report of the study ends with the finding of agreement among admissions officers and others that the increased competition for spaces in the two-year college programs in the next few years will make it increasingly difficult for the applicant with inappropriate high school preparation to gain admission. It was not anticipated that the colleges would mandate higher requirements, in terms of more rigidly controlled preparation, but that the ever increasing group of applicants would of necessity include a larger number of more broadly educated students. The findings concerning the availability of opportunity for college for high school graduates of occupational programs appear to be encouraging, at least for the present. However, without any supporting evidence one can probably state with some certainty that high school students in these programs—and their counselors—are scarcely aware of these opportunities for further education. If there were to be such an awareness, as a result of dissemination of information about opportunities through use of the study report, one might also assume that demand would very quickly out-distance available spaces.

A Backward Glance

Unskilled, unemployed youth—both high school graduates and dropouts, white and non-white—have cluttered the labor market with great regularity. In times of recession it is the inexperienced and the least well trained who are the first to become unemployed. The year 1966 is a time of high level of employment which may reach the stage of a serious labor shortage. In this time of plenty, it is incumbent on the educational planners to prepare for the decline in employment opportunities which will surely follow. Youth should have priority in planning, although the needs of older workers for retraining, upgrading, and refresher training must be kept in mind. Disadvantaged youth who suffer from society's long neglect must have first claim on expanded opportunities for training after high school, since there is no equality in opportunities for employment for the white and non-white with equal, minimal training. Research seems to show that Negro and Puerto Rican high school graduates are most in need of further education if they are to have a fair chance for gainful employment.

High school graduation, *per se,* from the ghetto or vocational school guarantees little by way of academic achievement or employable skills. The graduate is often distinguishable from the dropout solely on the basis of his disciplinary record, *i.e.*, the dropout who was forced out has the same level of skills as the graduate who stayed in school and out of trouble without gaining measurably from the additional experience. There are graduates as well as dropouts who are functionally illiterate, in terms of employability, and in both groups there are multitudes whose achievement in high school belies their native, non-verbal intelligence. Their potential can scarcely be predicted from what is known about them when they leave school and for this group the State University motto, "Let Each Become All He Is Capable of Being," is most difficult to achieve. Many states, many schools, many interested groups, and countless individuals with a variety of talents are making a serious attempt to extend educational opportunity to these least able students. None has yet met with the success which is required to fulfill the commitment to universal opportunity for post-secondary education. The challenge has been given anew to the State University of New York to seek it for its own youth.

5. Advice from Youth to Be Served

The Need for Another Voice

Leaders in government, business and industry, education, labor, and science and the arts all have at one time or another pointed to the need for vastly increased opportunity for education beyond the high school, for the good of society and the individual. The educational establishment has echoed this statement of need, while stopping somewhat short of developing comprehensive plans to meet it. The voice of the students who are yet to be served has seldom been recorded, at least in any systematic fashion. One can infer need from rising college enrollments and increasing percentages of high school graduates planning to attend college. However, few planners have considered the perhaps remote possibility that some saturation point could be reached in the creation of new opportunity for post-secondary education, assuming of course that education beyond the twelfth grade would not be made compulsory. There appears to be little danger of saturation in New York State in the foreseeable future, with less than half the high school graduates now going on to college, but the nature and strength of the motivation for further education among those not going on must be assessed in any inquiry into the unmet educational needs.

Surveys of the need for a new college or a new curriculum usually include some evidence of demand on the part of the students who might be served. Sometimes inferences are made on the basis of what is true at the time, *e.g.*, rising high school graduation rates and increased need for technicians. In other studies, questionnaires are administered to student groups and doorbells are rung in efforts to sample parent opinion about educational needs and interest.[52] However, far too seldom are individual students interviewed to find out how they really feel about their past experience and the kinds of opportunities which might be offered them. This is particularly true now, during a time of great pressure on the part of some students to gain admission to particular colleges. The efforts of high school counselors too often are concentrated on the seniors who know what they want to do, where they want to go to college, and have reasonable potential for carrying out their plans. Neglected are the seniors without plans and usually without adequate information about opportunities for further education, some with undeveloped potential for college and others with little aptitude for existing college programs.

Plan for the Interviewing

The decision was made to interview a sample of high school seniors and their parents in New York City and in each of the major upstate cities. Subjects to be interviewed were drawn from among students who had made no plans to attend college by January of their senior year, when the interviewing began. The major goal of the interviewing was to find out from these young people whether they might want to avail themselves of an opportunity for further education if it were offered to them specifically, either in a community college or under other auspices. The interviews began with the following general assertion:

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[52] Studies made in support of the establishment of area vocational schools made use of one or both of these techniques. For example, students were asked by questionnaire to express their interest in obtaining vocational training — generally and for a vast array of occupations. The evidence of interest thus obtained is sometimes suspect because of the tendency of the students questioned to be compliant, *i.e.*, to give the answers they think that their questioners seek.

> Last year Governor Rockefeller asked the State University to look into the problem of what can be done for young people like you who are not going to college now. He was especially concerned about high school students in large cities who find it difficult to get jobs after graduation or to get into a college or specialized school to get training for regular employment. We do not expect that everyone wants to (or should) go to college after high school. Still we know that most people will need some further training if they are to have steady employment and move ahead in the years to come. We do think that *many* more young people should be getting some education after high school than are doing so today. We may have to start new schools or colleges, or develop new programs, or maybe just change the way we do some things now in our colleges.

An attempt was made to convince the students and their parents that this was not "just another study" which would result in no action. The parents were given much the same rationale for the interviewing as was given the students, with an acknowledgment of the importance of their influence on the planning and decisions of their children. They were also told that there is a growing concern about the needs of people like themselves for further education which might also be met in the new types of programs.

Arrangements were made for interviewing in Buffalo, Rochester, Syracuse, Rome-Utica, the Capital district, Yonkers, and New York City. High schools were selected which had the largest concentrations of students who were not bound for college for reasons of economic disadvantage and type of program followed in high school, or both. Vocational-technical high schools were asked to participate in the study, as well as comprehensive schools with relatively low college-going rates. Some Catholic high schools which had relatively small percentages of graduates attending college were also included. Seniors were selected for interviewing from among students who had not made plans to attend college. Most had pursued programs not regarded as college preparatory. The selection of interviewees was made randomly without regard to high school achievement, academic aptitude, socioeconomic status, or race. However, twice as many boys as girls were selected for interviews. In addition to the high school seniors, a small group of recent graduates was interviewed in each city except New York. Subjects were chosen who had graduated in 1965, had not gone to college, and were available locally for an interview. Finally, an attempt was made to interview one or both parents of half the young people who were interviewed. The decision to limit the parent interviews was made on the grounds that parents of the type of student selected have been found in other studies to be rather disinterested in the problem under study, unable to communicate with the interviewer, uncooperative, and difficult to contact. An attempt was made to find parents who had something to say about their children's needs for further education and were willing to give time to an interview. The sampling was defended on the grounds that the purpose of the interview study was to obtain information which would be useful in educational planning, rather than objective data for purely research use. In most instances the interviews with parents took place in their homes where it was possible for the interviewer to make some assessment of the feasibility of having the student remain in the home if he enrolled in post-secondary programs or, to take the other view, the necessity for taking the student out of his home environment in order to improve his chances for later success.

An interview team was organized in each city with a local coordinator who selected and trained the interviewers, established working relations with the individual schools, and gave general supervision to the selection of the subjects to be interviewed and the collection of related information. Most of the interviewers and coordinators were advanced graduate students in education or the social sciences in one of the universities in the cities where the interviewing took place. In one city staff members from a local four-year college conducted the interviews while in another, where there is no local university, interviewing was done by public school staff members during out-of-school hours. With this exception, student interviews took place in the school, during the students' free periods.[53]

Focal Points of the Interviews

The initial phase of the interviews with high school seniors was devoted to a discussion of their plans for the following year—job, military service, some type of training or further education, or marriage. An attempt was made to find out how firm the students' plans were for the next year and for the future beyond the first job (or service or training period). This information was expected to yield some idea of the availability of these students for full-time education in new types of programs. The students were hen given an opportunity to express their feelings about "college"—whether they had ever thought about going, how important it is to have a college education, and, if they had been interested at some point, why and when it had become apparent that they were not going. The interview moved from a consideration of college-going to questions about felt need for some type of training or education after high school, either the following year or later. Midway in the interview, specific reactions to 11 areas of employment were sought, in terms of the students' interest in an offer of opportunity for training leading to skilled employment in each field. After they had been asked to express their preferences for the several fields, the students were questioned about the type of job for which they might like to seek training. The questions were structured in such a way as to keep responses about vocational aspirations within what appeared to be reasonable bounds, *i.e.*, below the higher professional levels. The areas which were covered included manufacturing, retail or wholesale business, construction, health, civil service, education, the hotel-restaurant industry, transportation, real estate and insurance, repair or servicing, and personal services.

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[53] A list of interviewers and coordinators is given in Appendix C, pp. 217-220.

Interviews with students who manifested no interest at all in further training of the type which a comprehensive community college might offer were then terminated after a few questions about their high school experience and the characteristics of their families. Students who evinced some interest in what might be offered were asked a series of questions about the conditions under which they would prefer to take further training—problems of borrowing money, living at home, working part-time, and the like. They were asked specifically about their local community college, with the objective of finding out whether they were aware of opportunities offered by these institutions, and what perceptions they had of the student body, costs, and programs. Interview schedules for high school graduates who were not in college were similar to those designed for use with the seniors, except for the opening questions which were changed to refer to the present instead of the year after graduation. Parent interviews began in somewhat the same way, with questions concerning expectations about and prospects for their son or daughter, particularly in employment. They were asked about the kind of influence they felt that they had had on their child and for a general evaluation of the education their child had received to date. From here the questioning moved to the subject of college or other training beyond the high school. Parents who showed some interest in training for their son or daughter were asked a series of questions about the conditions they would set for having their child continue his or her education, including what they might be willing to contribute to his support during the period of training. Since a majority of the families in the interview sample were in the lower socioeconomic groups, it was hypothesized that the parents might oppose further training which would keep the son or daughter away from gainful employment for still another year or more. The parents were also queried briefly about their own interest in obtaining further education or training for better employment.

Description of Students Interviewed

An attempt was made to obtain a balanced sample in each upstate city of 100 student and 50 parent interviews, which would include a 2:1 ratio of high school seniors to recent graduates and also a 2:1 ratio of boys to girls. Interviews with parents of high school seniors were given priority over those with parents of graduates but no specification of numbers was made. Seniors to be interviewed were drawn at random from rosters of students with no known plans to attend college next year. A somewhat different sample of students was drawn in New York City, because of the size and complexity of the public school system. Interviews with seniors were arranged in 10 high schools in Manhattan, Brooklyn, and the Bronx. The 10 included two vocational-technical schools, two Catholic schools, three general academic schools serving students from Harlem and other low-income areas in Manhattan, and three general academic schools serving large numbers of disadvantaged students in Brooklyn. Approximately 30 students were interviewed in each school except the Catholic schools, where a sample of 11 girls was drawn from one and a sample of 20 boys from the other. One interviewer was assigned to each of the public schools and a single interviewer to the two Catholic schools. Parents were interviewed by the same team. No attempt was made to interview out-of-school youth in New York City.[54]

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[54] Discussions with various school and civic officials concerning the feasibility of interviewing recent graduates, as was done in other cities, led to the conclusion that the information which could thus be obtained did not warrant the expenditure which would be required. However, contacts of a less formal nature than the interviews were made with young people and staff members in various agencies offering training for employment, which yielded useful information for planning purposes.

More than one-half of the students interviewed in the New York City schools were Negro or Puerto Rican. Thirty-five per cent were known to be Negro and at least 15 per cent had come quite recently from Puerto Rico or a Spanish-speaking country. In fact, interviews with a few of the parents had to be conducted through an interpreter. In the upstate cities the percentage of students interviewed who were Negro ranged from 1, in the Utica-Rome area, to 24 in Buffalo. No attempt was made to select students to be interviewed on the basis of race and the numbers which were obtained in the sample are believed to be proportional to the numbers in the groups of non-college bound students in the schools studied.

A brief description of the students interviewed, in terms of their high school records, may serve as a framework for interpreting the interview data. There are distinct differences between the New York City and upstate samples, which are to a large extent a reflection of differences in the organizational patterns of the high schools. About one-half of the New York City interviewees were in general studies programs and one-fourth in occupational programs in the two vocational-technical high schools which participated in the study. The balance was divided about evenly between academic (or college preparatory) and business (or commercial) programs. In the upstate cities, slightly less than 30 per cent of the students interviewed were in general studies programs, about 37 per cent in business or commercial programs, and about 17 per cent in college preparatory programs. Only 12 per cent were graduating from trade-technical programs and about 7 per cent from industrial arts or home economics programs offered in comprehensive high schools.[55] Seniors in the Catholic schools accounted for a large proportion of the group in college preparatory programs. A majority (but by no means all) of the students in the business programs were women, while the trade-technical students were mostly men.

Their high school achievement is also of some interest although variance associated with the program which they followed tends to confuse the picture somewhat. Specifically, some students with very good grades in vocational and business programs were interviewed who were not college bound. An attempt was made to avoid interviewing seniors in college preparatory programs whose grades were not quite good enough to qualify them for college under present circumstances. As a result, the students in academic programs who were interviewed were for the most part low achievers. At the time the interviews took place, the cumulative averages of 7 per cent of the New York City students and 5 per cent of those upstate were below 65, which would probably keep them from graduating unless considerable improvement took place in the final semester. About one-fourth of the New York City students and one-fifth of those upstate had earned averages between 65 and 69. Nearly 60 per cent of the students had averages in the 70s — in the lower 70s in New York City and tending toward the upper 70s in the upstate schools. At the upper end of the grade distribution the tabulation showed only 7 per cent of the New York City students with averages between 80 and 90 and 16 per cent of the upstate students with averages over 80. Only two students in the interview sample had averages of 90 or better.

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[55] No reliable figures are available on a statewide basis which show the percentage of high school graduates receiving the different types of Regents and local diplomas. Some statistics are available concerning the Regents diplomas but since they are awarded in a number of fields, not all of them regarded as college preparatory, the usefulness of these figures is limited in the present context.

Class rank was also available for a majority of the students in the interview sample. For most, rank was based on the total number of students in the class, without regard to program. However, as was true of the grade-point averages earned, the ranking was related to the type of school attended. The students who ranked high were often in vocational high schools. About two-thirds of the students who were interviewed ranked in the bottom two-fifths of their class, *i.e.*, in the lower 40 per cent. In New York City, 26 per cent ranked in the lowest fifth, 35 per cent in the second lowest. Upstate 35 per cent of the students were in the lowest group, 31 per cent in the second lowest. At the other extreme, 5 per cent of the New York City students and 7 per cent of those upstate ranked in the top fifth of their class, and 14 and 11 per cent, respectively, in the second fifth. The rank data thus show more clearly than the grades the relative academic standing of the students who were interviewed. An attempt also was made to obtain some type of psychometric data for the students who were interviewed. As might be expected, there was great variation in the tests used, the time of the testing, and in the nature of the data available—within as well as between school systems. Test results appeared to be quite invalid for many Puerto Rican and other students with serious handicaps at the time they were tested. However, some measure of mental ability yielding an intelligence quotient was available for nearly half the upstate students whose native language was English. In this group, about two-thirds had measured IQs between 90 and 110, 15 per cent below 90, another 15 per cent between 110 and 120, and about 5 per cent over 120. Most of the students with high scores were in non-academic programs in high school and had shown little or no interest in attending college.

It is clear from these statistics that high school seniors not planning to go to college are a heterogeneous group with respect to the programs they pursued in high school, their achievement, and their capability. The problem of expanding educational opportunity is much greater than one of creating new programs or colleges for students in the lowest ranks of their high school class, although their need for further education, training, or other type of assistance may be greater. The interview sample, by design, was focused on seniors who had little likelihood of attending any type of college immediately after high school. Most had made no application and had expressed little or no interest to their high school counselors. The question of who *should* attend college is a complex one but the analysis of the data was undertaken within the framework of a national and state commitment to expanding and extending opportunity for education beyond the high school, toward the goal of universal opportunity.

The Students Have Their Say

Nearly 900 interviews were conducted with high school seniors and recent graduates in New York City and in the six major upstate cities. Interviews were also conducted with about one-half the parents of the students who were interviewed. From this mass of material came a number of generalizations concerning the readiness of current non-college-goers to take advantage of the opportunity for further education being tendered them. The generalizations obviously do not apply to all students in all cities but they represent a kind of distillation of the many thousands of responses to the interviewers' questions. They are believed to have some importance as factors to be reckoned with in planning for the expansion of post-secondary education.

Going to college is clearly *not* the dream of the high school seniors who are now being deprived of the opportunity as a result of their culturally and/or academically disadvantaged backgrounds. Given completely free choice in saying what they would most like to do after high school, with no limits, a majority of the group would travel—around the world, to Florida, to Europe, to California—in connection with a job, in service, or on their own. Some simply had not thought about the question recently and could not formulate a quick response. Still others said that they would be doing exactly what they wanted to do, usually in a particular type of job. Only a few produced the perhaps anticipated answer of going to college or a university. In fact, in no part of the interviews did the students show signs of frustration, great disappointment, or bitterness over lack of opportunity to attend college. For the most part these students accepted their fate as non-college-goers and plotted other courses of actions.

The replies of the seniors might, in fact, be interpreted as expressing a "Show me!" attitude about attending college. In other words, when opportunity to attend was dangled before them—at no cost to them, in their home community, and with new types of programs —the response was often, "Well, maybe, if you offer the kind of course I want." While many were apathetic about their futures with respect to both training and employment, most of those who rejected college for themselves had settled on other courses of action which would move them toward their goals. For the most part the seniors were anxious to enter full-time employment at what they hoped would be good wages, leaving training to be accomplished at night, on the job, or as part of apprenticeship programs. Many of the young women seemed to feel less hurried than the men to take jobs after graduation but, on the other hand, they were unwilling to spend time on college programs, preferring instead the business-secretarial "finishing" school. There was fairly high consensus that college is important for getting ahead in the world, that they needed some further training, and that they would probably look favorably upon the idea of enrolling for further occupational training if they could get the courses they wanted at a local community college, on their own terms. However, there was relatively little aggressive interest in what might be proposed. The students seemed almost to be conditioned to the notion that "college" was not for them, in any form and under any conditions.

Many students confided to their interviewers that they were not "college material" and that they had found this out some time ago. Later they admitted that they could have done much better work in high school but saw no point in doing so since they were not going to college. Their responses tend to conjure up the image of a school counselor sorting out and labeling the young students as they enter high school, some to bear the label, "college material," and the rest to remain anonymous in general studies and other programs leading nowhere in particular. It was evident that the latter group had very little acquaintance with opportunities for post-secondary education which might be open to them in the community and agricultural and technical colleges. Their high school grades belied the native ability of many in the group who had not hit their stride until their senior year. This was particularly true among the young men. However, the early stigma of poor grades and the "non-college" label apparently led them to believe that opportunity for college as a regular student would be denied them, at least right after graduation from high school.

There was considerable agreement that a college education is important if one is to get ahead in the world of employment, but that college was not very necessary for them, personally. Most of the students who were interviewed regarded their parents as supportive of their efforts to complete their education, both in high school and beyond. In relatively few instances did they report that their parents actively opposed the idea of their obtaining education beyond high school. The ability of the parents to assist them financially was probably limited in a majority of the cases interviewed but there also appeared to be some encouragement. The extensive information about family characteristics obtained from both the students and their parents creates an impression of a low level of formal education completed by the parents, particularly the father; a high incidence of broken homes as a result of separation or desertion; large families with rather uneven school attendance patterns on the part of the siblings; and a great amount of variance in the family income of the students interviewed. In the large families there was often at least one older brother or sister who had attended college and/or one or two younger children who ought to go, according to the students who were interviewed. Many families included one or two high school dropouts among the older children but, on the whole, the level of education completed by the several children would undoubtedly be considerably higher than that of most parents.

In each city a small group of seniors in the interview sample were seriously in need of help in making decisions about and plans for their future. They were of two types—the totally apathetic and undecided, and the unrealistic goal-seekers. The latter group included many young men expecting to enlist in the Air Force for training as pilots or high level technicians, for which they had neither preparation nor aptitude; others with low normal intelligence expressing a strong preference for technician training in electronics or the communications field, generally; and still others, many of them women, with a commitment to teaching or nursing but with no sensible plan for arriving at their long-held goals. The apathetic may be most in need of help for the others will probably take some action to obtain gainful employment, however incompatible with their ambitions. The draft may take care of those with no plans of any kind but the potential loss of talent is still great if they do not receive good counseling and training in the service.

Finally, a generalization which will surprise no one is that the young people and their parents are woefully unaware of their local community colleges—opportunities, purposes, sources of support, costs to the student, and the services which are or should be offered by a truly comprehensive institution. The lack of information evinced by the students and their parents is undoubtedly a reflection of the information and attitudes held by the high school counselors, most of whom have had little direct experience with community colleges. It may also be a reflection of less than aggressive community college leadership in communicating and interpreting its roles and functions to the public. Many students interviewed professed to have no information of any kind about their local college, except perhaps its location. Others recited erroneous information about its major purposes (*e.g.*, to prepare students to transfer to senior colleges) and about costs to the student (*e.g.*, $3,000 per year). Most common of all was the perception of vast numbers of seniors that the community colleges were established to serve students who do not qualify for admission to four-year colleges as freshmen or who cannot afford to attend a four-year college, or both. This image of the community college might have been predicted for other states where it does indeed accommodate these two types of students. However, the young people and their parents did not know that the image is a false one for the New York State colleges which admit only the able students to their technician and liberal arts programs and which charge tuition. Despite their perception of the community college as a refuge for students who do not qualify for admission elsewhere, many of the students who were interviewed voiced the opinion that the local college should be far more flexible in its admission standards, particularly in giving a "second chance" to students with poor high school records.

Expectations of the Seniors

Some plan of action for the year after graduation was given by all but a few of the seniors who were interviewed. Most who planned to work had a fairly definite idea of the kind of job they would obtain and a large number already had secured firm offers of employment. Slightly less than half the boys expected to seek full-time jobs on other than an interim basis while waiting to enter the Armed Forces. Those in the latter category expected that they might encounter some difficulty in employment but, on the whole, the seniors anticipated no problems in finding their first jobs after high school. Nearly one-third of the male seniors expected to go into the military service directly from high school, or as soon as they reached 18 years of age. Most seemed to view their service obligation as an opportunity to obtain the specialized occupational training they desired and also, judging from other interview responses, as an opportunity to leave home and travel. Electronics and mechanics were the preferred fields for training while in service, although a sizeable group expected to seek training in data processing, some phase of transportation, or another aspect of logistics. As was pointed out earlier, a large number of the potential recruits appeared to be unrealistic about their aptitudes and prior achievement in expressing their preferences for specialized training in service. In some cases it is doubtful whether the branch of service of their choice would in fact accept them because of their low potential for training. Relatively few expected to seek Army training; the preferred branch for most was the Air Force.

About 20 per cent of the males expected to seek some type of further education after high school, as an alternative to employment and military service. Business or, more specifically, IBM training was the choice of the largest number. Their intent was to enter the job market at a level somewhat above the minimally skilled clerk with only high school training in business. Aspirations ranged from key punch operator to computer programmer and accountant. Post-graduate courses in the high school were the choice of still another sizeable group, either in an attempt to qualify once more for college or to obtain training they did not have time for previously. Small groups of boys expected to obtain training as barbers, auto mechanics, draftsmen, policemen, and apprentices in various union programs. On-the-job training was both the expectation and the preference of most of those who did not plan to enter the Armed Forces after high school. A smaller number expected to carry a daytime job and take night courses, typically in some aspect of business or commerce, to improve their employability. As would be expected, a large number hoped eventually to enter a vastly different field of employment than the one in which they expected to find work right after high school. Some phase of commercial art was the choice of a surprisingly large number of both boys and girls, many of whom had taken considerable coursework in art in high school. Another popular goal for eventual employment, after additional training, was in the field of electronics. It might be questioned whether the commitment to electronics was a real one, at a time when these young men were expecting to enter employment as clerks, machine operators, and construction workers, or whether they had been attracted by the publicity now being given the field. As noted previously, few appeared to have high school and test records which would make them suitable candidates for training as electronics technicians, even after considerable remediation in mathematics and science.

Almost without exception, the senior girls expected to take jobs or seek further education after graduation from high school. Some mentioned marriage as a prominent factor in their planning for the immediate future but none answered the opening interview question—"What do you expect to be doing after you graduate from high school?"—by saying that they planned to marry. Although most expected to be married within a few years, they appeared to be scarcely less concerned than the boys about their plans for employment and further training. Three-fourths of the girls expected to enter employment after high school graduation and the remainder planned to seek some further training. A few expressed interest in VISTA or another volunteer program, or in one of the women's branches of the Armed Forces. Most of the girls planning to continue their education expected to do so in business schools, so as to secure good job placement as a secretary. Some sought training in other business skills, *e.g.*, bookkeeping, office machines, data processing, or receptionist. When asked if they would prefer a collegiate course which would give them the same type of preparation in a different setting, most expressed satisfaction with the plans they had already made. Small groups of senior girls expected to seek training as airline stewardesses, beauticians, nurses or nurse aides, or in a trade such as dressmaking. Nearly one-half the girls had been employed while going to high school, most of them in jobs other than babysitting or vacation work. Some held part-time office jobs which would lead to regular employment after graduation. Others worked as sales clerks, cashiers, waitresses, and aides of various types, in jobs which paid them modest sums of money for their own use.

After initial questioning about their plans for the year after high school and their reasons for not attending college, the seniors were confronted with specific proposals for offering post-secondary training under the auspices of the local community college (or elsewhere, if the student reacted negatively to the idea of college). Nearly one-fourth of the seniors, including some who expected to need further job training in connection with their employment, rejected the offer outright. The percentage of girls who had no interest in the offer was somewhat higher than that found for the boys since many of the girls had specific secretarial skills which were quite adequate for employment before marriage. Among those who expressed some interest in new types of programs, the two areas of employment attractive to the largest numbers of senior boys were the repair or servicing business and the construction or building industry. Others which were found to have high appeal are civil service (government at the local, state, or federal level), manufacturing, retail or wholesale business, and transportation. Girls were strongly attracted to advanced training for office jobs under civil service and, to a lesser extent, for jobs in finance, insurance, or real estate. Two major patterns of interest could be identified among the boys. The first involved outdoor work (or work free from the confines of office routine), somewhat independently, using their own initiative and craft-type skills, and perhaps, eventually, establishing their own small business. The other common pattern of interest might be characterized as the seeking of security and regularity in working conditions, with established lines of upgrading and promotion, in a large company or as part of a large staff of employees. Seniors with the latter type of interests and values wanted training for skilled employment in business or government; those with the former tended to want to develop skills which they could use in the repair or servicing business or in the construction or building industry. This is obviously an overly simplified statement of the factors in employment which the senior boys said were very important to them. However, the factors may prove useful in attempting to develop educational opportunities for the type of youth who was interviewed.

Seniors who expressed some interest in availing themselves of whatever type of opportunity might be offered were asked specific questions about the conditions under which programs should be offered. Few objected to taking training under the auspices of the local community college, rather than a business or trade school, provided they would not be required to enroll in general education courses unrelated to the training they sought, *e.g.*, history and literature. They expressed a strong preference for work-study programs, over full-time study as a day student. As was noted earlier, most of the boys and nearly half the girls were already employed on a part-time basis and they were quite unwilling to give up the income to which they had become accustomed. Many were contributing money to their families for room and board, as well as buying their own clothes and paying for their own personal expenses. Some preferred to find their own employment while studying on a part-time basis. Others responded with some enthusiasm to the proposal that they work under the general supervision of the college. The boys were generally agreed that they could remain at home with their family while continuing their education, although some indicated a need for contributing something to the family income during this time (as many had been doing in high school). The girls, on the other hand, expressed a strong preference for going away from home for their post-secondary training. However, the latter appeared to be a personal desire, rather than a necessity from the standpoint of profiting from the instruction. The students were also asked how they would feel about borrowing, at a low interest rate, money they would not be required to repay until they finished their programs. The reaction was generally noncommital and at times even negative, particularly among the girls. The seniors strongly favored a combined program of study and employment in preference to borrowing to undertake full-time study, although the work-study program would delay their entrance into full-time employment.

The student interview data contain many suggestions, cautions, and preferences which need to be considered in developing new educational opportunities under State University auspices. Emphasis in the manpower training programs has been on job vacancies and training needs. The needs and interests of the young people who are expected to enroll have had a subordinate role in program development. Their needs should be recognized clearly in the planning of new types of programs in the community colleges, although care must be exercised that programs are not developed for which no job vacancies exist. The effective starting point of these new programs should be the characteristics and needs of the young people to be served.

Out-of-School Youth Speaks

Interviews were conducted with small samples of recent high school graduates in the upstate cities, to assess their interest in obtaining further training under community college auspices. The samples were drawn from the rosters of graduates in 1965. This was done by telephoning the homes to locate those who were available for interviewing but not in full-time college attendance. Only a small number of the graduates who could be contacted were idle, *i.e.,* unemployed, not in school or other training, nor in service (or waiting for induction). About 80 per cent of those interviewed were employed full-time in their hometowns or nearby communities. With the exception of a few who were on leave from the Armed Forces when the interviews took place, the remaining 20 per cent were enrolled in non-collegiate programs at the post-secondary level, some as post-graduate students in the local high school. The latter group included some who were trying to establish eligibility for college admission by taking required preparatory courses or improving their grades. Others were enrolled in occupational courses which they had been unable to take before graduation because of other requirements they had to satisfy in order to receive their diploma. Most of the graduates who were not in high school programs were enrolled in some type of business school or institute, with which they expressed general satisfaction as an alternative to college training.

The need for some type of further occupational training was felt much more keenly by the recent graduates who were employed than by the high school seniors, although both groups gave lip service to the need. However, two disinterested sub-groups were identified in the sample of graduates, neither of which would appear to produce good candidates for new types of programs. Young women with immediate plans for marriage and homemaking constituted the first group. They expressed satisfaction with their present level of employment, which they expected to be terminal, while voicing some remote interest in refresher courses some years hence if they were to re-enter the labor market. The second group was composed of graduates planning to work for only one or two years before undertaking full-time study in a regular college program or specialized school. Their plans were well laid and progress toward their goals was satisfactory when the interviewing took place, some eight to ten months after high school graduation.

Those graduates whose need for further education is the legitimate concern of the State University also tended to fall into two categories—those who were ready for advancement, improvement, or upgrading in the occupation they embarked upon after high school, and those with strong motivation to obtain training in a field other than the one in which they accepted employment after high school. On the basis of the interview data alone, it is difficult to know whether the graduates seeking retraining would be well advised to do so since their goals were in many cases vastly different from those to which their current employment would lead them. On the other hand, evidence seems to point to the likelihood of many being seriously under-employed in the future unless they are retrained in line with their potential without further delay. The problem of optimum (or maximum) utilization of talent comes into focus in the interviews with the graduates, many of whom are headed for long-term employment which is far below their probable potential, while others are laboring with very unrealistic aspirations for advancement. The current failure of many colleges to give a second chance to high school graduates with good potential but poor grades is reflected in the interview data obtained from some of the recent graduates. The training needs of those who are recently but suitably employed are much easier to meet than those who want to change fields. However, the assumption cannot be made that either group of recent graduates would be available for full-time study or training, even if provision were made for stipends or liberal loans. There is a serious problem of determining what can best be done on the job, by the employer, and what types of training and supporting courses should be offered under college or other educational auspices. Recent graduates with one or two years of work experience appear to provide an excellent pool of potential students for occupational training but their testimony points up their need for continued occupational counseling as they undertake training, and for a great amount of flexibility in programming as training opportunities are established.

The Parents Speak Out

The heterogeneity of family characteristics in the interview sample of students is clearly reflected in the responses given by their parents to questions about education and college attendance. The modal parent who was interviewed had completed less than a high school education, was a first generation citizen of this country (or foreign born), had a large number of children (among whom the interviewed student was often a middle child), and earned what is regarded as a sub-standard income. However, a second type of parent who appeared with some regularity in the interview sample had some college or advanced business training and was employed in a managerial or professional capacity. In the latter instance, the interviewed student had clearly rejected the values of the parent and rebelled against the kind of education the parent proposed for him, often despite quite high native ability. There was little incidence in the study of educated parents who had compelled their youngsters with poor potential to prepare for college, since the interviewing plan tended to exclude such students. Instead, some parents were interviewed who were quite properly concerned about the needs of their "talented but misguided" youngsters who had rejected a traditional college education. There appear to be few in the ranks of the high school seniors with high potential but low achievement, poor preparation, and little present motivation for college who are being forced to conform to their parents' expectations. Since this is so, there is a compelling need for provision of upward mobility—in terms of education and related employment—

in the post-secondary programs which are to be established.

Well-educated and poorly educated parents both voiced the opinion that they tried to leave important decisions about education beyond the high school to their youngsters as they approached graduation. Their frequent comment was that they would support a decision to attend college in every way possible but would not exercise undue influence in this direction. Their support and encouragement appeared to be genuine and reasonable. However, they would not try to provide money for college unless their son or daughter was truly interested in a college program and had demonstrated his or her willingness to do whatever is required of a good student. One could infer from the records that some parents may have taken too punitive an attitude toward their youngsters in judging them not to be "college material." Many expressed a strong desire for closer contact with the high school counselors and teachers to be a better judge of their children's achievement in relation to their potential and to the effort they were putting forth. They voiced little understanding of the requirements or programs of the local community college and apparently had never considered it seriously as an appropriate opportunity for their youngsters, particularly as an alternative to a four-year institution. While approving in general the notion of a comprehensive community college when it was explained to them, the parents had proposals of their own for expanding opportunity.

Parents with little formal education tended to favor the establishment of "trade schools" for their children who were ill suited for existing college programs because of their ability or interest. They had a rather fixed image of what a college should be and seemed unable to expand it to include occupational training below the technical-professional level. This was consistent with their frequently voiced conclusion (bordering on the cliché) that their child was not college material and could better profit from instruction given under other auspices, perhaps in connection with employment. Despite their denial of influence on their child's decision about college, a number of parents with limited education had made specific arrangements for the employment and/or training of their sons after graduation, *e.g.*, in the company where the father was employed, in the family business, or in a union training or apprenticeship program. Parents who had attended college themselves tended to propose a somewhat greater (or different) expansion of educational opportunity than is anticipated at present. Specifically, they suggested a vastly expanded community college to meet current needs, which would offer baccalaureate as well as associate degree programs. Greater flexibility in admissions standards was proposed by many who believed that the two-year colleges now require a rigid pattern of academic preparation for admission, as well as high grades and test scores. They were less favorably impressed by the "trade school" approach to the expansion of opportunity than by the extension of present programs and services. Both groups voiced faith in the ability of most of their sons and daughters to be successful in whatever they attempted, despite their present inability to continue their education.

There were, of course, pockets of resistance among the parents interviewed and among the countless people who refused to be interviewed. However, parents who would not support the attempts of their children to obtain further education were in the minority among those who participated in the study. In any event, the need is evident for information about present and future opportunities for use by high school students, graduates, parents, counselors, teachers, and interested citizens.

6. What do the Colleges Say?

Introduction

The means which will be employed to extend opportunities for post-secondary education to an ever increasing percentage of youth will depend to a considerable extent upon the vision and creativity of the existing institutions, and upon their willingness to shed conformity and stereotyped approaches to programming. In question is their viability, on the one hand, and their attitudes on the other. Boards of trustees, the administration, and the faculty will all participate in one way or another in the decision to grow in size, to expand programs, and to open the door to young people who are now declared ineligible or unqualified for college training. The power of the legislature to mandate new programs and services is not ruled out, nor is the authority of the boards responsible for state-wide coordination of higher education. However, unless there is a genuine acceptance of the expanded functions by the colleges, particularly by the faculty members, success will be elusive.

Among the several types of collegiate institutions which operate within the State University of New York, the two-year colleges — the agricultural and technical colleges and the newer community colleges — appear to be the most suitable types to take on the vast assignment of providing appropriate educational opportunities for youth who do not now have the opportunity to attend college. Such an assignment involves both open-door admissions and new types of curricula, as well as improved counseling and innovative methods of instruction. It is possible for colleges to adopt a policy of open-door admissions while refusing to devise new, more appropriate programs for the additional student groups to be served. It is even more likely that some colleges might admit all applicants and add curricula but fail to improve the counseling which is essential if students are to find the programs in which they can succeed, *i.e.*, to "become all they are capable of being." Scarcely less important is the character of instruction offered, particularly as numbers of students increase. The lecture-recitation method is relatively inexpensive, administratively efficient, and tempting as numbers of students multiply faster than available faculty to teach them. The newer instructional media are time-consuming at the start, and demand new skills and energy to be really effective. However, any major effort to expand post-secondary educational opportunity must include all four elements—open admissions, new types of programs, improved counseling, and more effective instructional methods.

The development of the public two-year colleges in New York State has been quite different from that in most other states, in terms of students to be served, emphasis in curriculum, and administration and control. It may suffice to observe that the State University colleges have built their good reputations on high quality technological curricula leading to the associate degree, and that they may be reluctant to admit students and/or to add programs which could in any way detract from this reputation. The image of a community college, in the eyes of its leaders, almost always includes the qualifying term, "comprehensive." While many institutions still fall short of offering truly comprehensive programs, the intent is real, and so is their willingness to give all high school graduates a chance to try whatever programs are offered. In New York State, at least a tacit assumption is made that admission should be granted only to those properly qualified applicants who have a high probability of succeeding in degree programs in either the technologies or the liberal arts. One of the goals of the research phase of the study has been to find out how prevalent the assumption is among the faculty, administration, and trustees of the colleges, and the likelihood that change could take place.

The Research Endeavor

Only one aspect of the capability of the two-year colleges to respond to the needs for increased educational opportunity could be tested in the present study. The research entailed an assessment of the attitudes and opinions of the people who make and carry out educational policy. For the present, at least, the assumption will be made that the public two-year colleges of State University could be the kind of viable institution which is needed if New York is to fulfill its commitment to universal opportunity for post-secondary education. However, the validity of the assumption depends heavily upon having personnel in the colleges who have such a commitment to serving youth, and who can be persuaded to take actions consonant with such a commitment.

A questionnaire was devised for use with the trustees, administrators, and faculty members of the local colleges, to obtain two types of attitudinal information, (1) perceptions of the extent to which the local college is now offering certain programs and services and desired priorities in adding new ones, and (2) opinions concerning purposes and functions, students, programs, and services of public two-year colleges, generally.

Certain biographical information was also solicited from the faculty members which could be related to their expressed attitudes, *e.g.*, teaching field, highest degree held, and teaching experience at various levels. Part of a questionnaire which was devised for a national junior college study now in progress was used as a model for the present instrument, in order to make comparisons between the attitudes of persons associated with State University colleges and those in the national study.[56]

The questionnaire was mailed in December, 1965, to all members of local boards of trustees (or council members, in the case of the agricultural and technical colleges), major administrators, and a 10 per cent random sample of full-time faculty members.[57] A direct mailing was made to individuals, with the request that they express their own personal opinions, anonymously, and return the questionnaire to the Study Office in a preaddressed envelope. However, the questionnaire forms were coded in order to make it possible to distinguish among types of two-year colleges (agricultural and technical, and urban and non-urban community colleges) and among groups of respondents (trustees, administrators, and faculty members). One additional request for cooperation in completing the questionnaire was made by means of an appeal to each college president to issue a general reminder to his faculty, staff, and trustees.

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[56] Data from the national study are not yet available for comparison. The study is being conducted by Leland L. Medsker and Thomas M. Shay at the Center for the Study of Higher Education at the University of California at Berkeley. Publication is scheduled for 1967.

[57] Faculty rosters were obtained for the 1965-1966 academic year in order to insure the inclusion of new faculty members in the sample.

The Colleges Speak

Individual, personal, anonymous opinions about the role and functions of the two-year colleges were sought by means of the questionnaire but the returns were often accompanied by signed statements in which the respondents elaborated upon their brief questionnaire responses. In still other instances, trustees and administrators returned incomplete questionnaires with the notation that they "agreed with whatever the president (or chairman of the board) said" or that a group response was being submitted for the several administrators at a particular college. Some trustees professed to have no useful information or opinions about their college, on the grounds that they had been recently appointed or supported the college president with no reservations.

Despite these variant returns, a vast body of attitudinal data was obtained from the trustees, administrators, and faculty who were questioned. The 34 two-year colleges were grouped according to type and location, although differences among colleges within the various groups were expected. The grouping which appeared to be most likely to yield homogeneous findings is the following: the six agricultural and technical colleges, the six community colleges in New York City and the Fashion Institute of Technology, the six New York metropolitan area colleges, the community colleges in the large upstate cities (including Niagara County Community College), and the remaining nine community colleges, which are for the most part in non-urban areas. The council members of the agricultural and technical colleges showed the least amount of interest in the inquiry, judging from the low level of response by the group. Two reasons may be offered to explain their poor response. First, the frame of reference for the questionnaire was the community college although it was explained in the instructions that the statements were intended to refer to both types of public two-year colleges. Then, the feeling has been expressed informally by some council members that they really have little or no influence on policy-making or planning at their local colleges which are, of course, State institutions.

The second group with relatively low interest in the questionnaire inquiry was composed of the trustees from the non-urban community colleges. Since the focus of the study is on the urban colleges in the large cities, the failure of the trustees of the other colleges to respond in large numbers is not alarming. Furthermore, their relatively disinterested response was not a reflection of the attitudes of the faculty members and administrators in the non-urban colleges. While the trustee response was uneven, staff members from both types of colleges, in all geographic areas, participated in about equal numbers in the study.[58]

The administrative group included the president or dean-in-charge of each college and, in addition, the chief academic officers, the dean of students, the director of admissions, and major division heads. Questionnaires were sent to a 10 per cent random sample of the full-time faculty with academic rank, including those who were newly appointed for the Fall 1965 term.

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[58] Members of the New York City Board of Higher Education and the State University Board of Trustees were not polled since their views on the subjects covered in the questionnaire are a matter of public record.

Opinions Concerning Two-Year Colleges

Ten broad statements about the role, scope, programs, and student body of the two-year colleges were formulated which were intended to evoke generalized attitudes toward the public two-year colleges in New York State. In a sense, a number of the statements are fundamental beliefs to which graduate students in the field of junior college education might be expected to react almost automatically. To the unintiated, the statements tend to represent issues or problems confronting those who are committed to the expansion of higher education and the development of two-year colleges, in particular.[59] A considerable amount of interviewing of college personnel and board members took place both before and some time after the questionnaire inquiry. Some interviewing took place on the campus of selected colleges; other information was obtained during informal discussions at regional and state-wide meetings.

Among the trustees and council members there was strong consensus with respect to four of the ten statements, strong disagreement within the group with respect to three statements, and moderate consensus with respect to three. The trustees were almost unanimous in their rejection of the following statement:

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[59] Respondents were asked merely to agree or disagree with each statement. The instructions did not, of course, preclude the use of a question mark to indicate uncertainty or the omission of a response. Some respondents took the initiative in editing certain statements in such a way that they could signify their agreement in principle.

Liberal arts transfer programs and career program leading directly to employment cannot be offered successfully in the same two-year college. There should be separate institutions for each type of program.

They were equally strong in their support of the statement that high school graduates should have some opportunity for higher education without regard to their ability to pay. However, some indicated that they were reluctant to have the statement apply to "all" graduates and others substituted the adjective "further" for "higher" as a qualifier for post-secondary education. The trustees were also in quite strong agreement that opportunity should not be denied on the basis of the high school graduate's interest (or lack of it) in "the traditional academic subjects which comprise the curriculum of a four-year college." They were less inclined to disregard the nature of the high school courses which the graduates had taken. There was very strong agreement with the statement—perhaps arrived at too lightly—that not all graduates who attend college should do so immediately after high school and, furthermore, that provision should be made for those who decide to enter at a later date. The first part of the statement received strong support in certain edited responses, while the claim was made that there is now adequate provision for the older college entrant.

The fourth statement about which there was strong consensus concerns program. A large majority of the trustees rejected the rather simple statement, "The main emphasis in the two-year colleges should be on occupational education." As might be expected, some of the council members from the agricultural and technical colleges agreed with the statement but an equal number disagreed with it, and only a few trustees from the community colleges endorsed it. The use of the term "occupational education" disturbed some trustees who have been accustomed to the terms, "technical" and "vocational," to which they attach certain values.

One of the most important findings of the questionnaire inquiry involves the problem of admissions. There was consensus concerning the major admissions statement only among the agricultural and technical council members, who all agreed with it. The questionnaire statement reads as follows:

> Two-year colleges should admit only those persons who, on the basis of tests and past performance, may reasonably be expected to succeed in the program they choose.

Some trustee respondents agreed in principle but pointed out that tests now in use do not predict accurately how well a student will achieve in college. Others recognized the need for better counseling as an adjunct to admissions procedures. The many editorial comments made by the trustees imply a lack of clarity in their thinking about the problem of admissions and a reluctance, at least at present, to support the idea of open-door admissions. Both the composite opinions expressed and the editorial comments lead to the conclusion that the trustees and council members are earnest in their desire to create appropriate educational opportunities at the post-secondary level for all (or at least most) high school graduates, but they are quite uncertain about the role their own colleges should play in doing so.

A second statement about which consensus is lacking is a simple one concerning program, namely, that there should be separate general education programs for students in terminal career programs and for those who intend to transfer to a four-year institution. In each trustee group, more respondents agreed with the statement than disagreed. There were few comments on the statement, from which fact the inference might be drawn that the respondents have given little thought to the matter and may be uninformed about present practice at their colleges. The third statement which evoked disagreement among the trustees concerned the role of the four-year institutions in determining the programs of the two-year colleges. A majority of the trustees disagreed with the statement that the senior colleges had been playing too large a role but in each group a sizeable number agreed with it. There was little elaboration of responses to this questionnaire item, except for an occasional terse comment to the effect that the trustee perceived that the senior institutions were playing much too strong a role.

In the remaining areas, the trustees tended to give the "good" responses, *i.e.*, to agree with the strong positive statements about the necessity to provide additional opportunity—whether in existing two-year colleges or in new types of institutions—and about the optimal role of the community college in extending and expanding educational opportunity.

There was a strong consensus among the presidents on a larger number of statements than among the trustees but they, too, disagreed among themselves with respect to two statements. As a group, the presidents were equally divided on the question of approval of the statement on selective admissions by the two-year colleges. A similar division was found for the statement concerning the influence of the senior institutions on program development in the two-year colleges. There was no apparent alignment of the presidents with respect to these controversial statements, *i.e.*, there was disagreement among the presidents of the agricultural and technical colleges as well as the community colleges. Somewhat less than total agreement was also found in the responses of the presidents to the statements concerning the need for two general education programs, their desired emphasis on occupational education, and a global description of the two-year college as a viable, sometimes unconventional institution.

Other administrators of the two-year colleges displayed a lack of consensus about certain statements which was like that found for the trustees and the presidents—about admissions, general education for different types of students, and influence of senior institutions. They also shared with the other groups of respondents very strong support for the statements that opportunity for higher education should not be subject to the student's ability to pay and that not all students who attend college should do so immediately after high school. They also professed a solid rejection of the suggestion that liberal arts and career programs cannot be offered successfully in the same two-year college. The administrators also voiced strong approval of the following, rather global statements about the two-year college:

> **The two-year colleges should offer a flexible program which can be adjusted to the needs of society, unhampered by conventional notions of what constitutes higher education.**
>
> **The diverse needs of high school graduates for further education can be met most effectively and economically in compre-**

hensive community colleges, locally controlled but with generous state support.

The agricultural and technical colleges were blanketed into the second statement by a number of respondents, as a special kind of community college. The administrators thus appeared to be a little less conservative than their presidents and boards of trustees in professing their belief in the two-year college as the best type of institution to respond to the increasing needs of society for educational opportunity beyond high school.

The faculty respondents to the questionnaire represent a much more heterogeneous group than either the trustees or the administrators. They varied widely in age, teaching field, amount and type of experience in two-year colleges, employment experience in addition to teaching, and formal education.[60] As was true of the other groups, the faculty were in wholehearted agreement with the statements about opportunity for higher education without respect to ability to pay for it, postponement of college for some high school graduates who will attend eventually (and the need for making provision for late attenders), and the offering of both liberal arts and career programs in one institution. They also resembled the other groups in their lack of consensus concerning admissions, the role of senior institutions, and the need for separate general education programs for liberal arts-transfer and career students. They also disagreed among themselves concerning the following statement:

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[60] An analysis of the relationship between these factors and the attitudes expressed is beyond the scope of the present report. It should be pointed out, however, that the faculties in most of the two-year colleges exhibited considerable variability as a natural function of the diverse associate degree programs now being offered. A gross analysis of responses is thus not entirely inappropriate at this point.

> All high school graduates have some potential for further education although they differ in their motivation and readiness for college at the time of graduation from high school, as well as in their special aptitudes and achievement.

A majority of the faculty in each sub-group of two-year colleges agreed with the statement but a substantial number disagreed. A comparison of the characteristics of those who agreed and disagreed with the statement showed no major differences between the two groups. Both included about the same proportions of men and women, young and old, liberal arts and technology professors, former secondary school teachers, and men with experience in business and industry. Selected comments by respondents who disagreed with the statement that all graduates have some potential for further education may serve to characterize the group more aptly than their measurable characteristics.

> Community college should be what the name implies—a college or higher branch of learning . . . care should be taken that it does not lose by being a "catchall" for everything. (Woman professor of social studies, secondary school and other teaching experience)

> . . . vocational objectives do not mix well with collegiate objectives. Let's keep our New York colleges "collegiate" in every sense. (Male professor of chemistry, college teaching and employment experience for many years)

> . . . disagreement is in your term for "further education." I am equally disheartened at the extreme idea that everyone should go to college, or the untrainables are not the responsibility of educators. If you do not mean that training should be offered all high school graduates, then I must rephrase my

answer to agreement. (Male professor of speech, teaching experience in two- and four-year colleges)

From these and other comments it is quite clear that faculty members who disagree with the statement that all high school graduates have some potential for further education are saying in effect that they do not want their college to open its doors to all high school graduates and, furthermore, that certain types of post-secondary education are better described as training which should be offered under non-collegiate auspices.

The opinion data from the various sub-groups are at times contradictory, occasionally discouraging as the task is faced of fulfilling the State's commitment to universal opportunity, but on the whole promising. Areas of considerable disagreement among groups could be interpreted as priorities for in-service education by the opinion-makers. There is strength in the areas of agreement—on serving (not denying) youth with variant patterns of high school achievement, on continuing the fight against the financial barrier to college, and on preserving the comprehensive-type college with both liberal arts transfer and career programs. It is apparent that there would be strong resistance from sub-groups to the imposition of what is now regarded as vocational training programs on the colleges, or to an insistence upon open-door admissions. It is equally clear that much work needs to be done to clarify thinking concerning the role of the secondary school in providing vocational education to out-of-school youth. There is evidence that greatest resistance to change as the downward expansion of opportunity may come from some individual faculty members who are articulate and firm in their opinions about their colleges. These are often the real leaders and opinion molders on their campuses and they are now beginning to be heard in state-wide groups dealing with educational policy matters. The common points of agreement in the several groups queried are indeed a strength. The many thoughtful statements which accompanied the questionnaires are tangible evidence that some community college people in New York State are thinking seriously about the issues involving the expansion of opportunity. The need for help on the part of many thoughtful respondents is evident in their testimony.

What Should Come Next

A major portion of the questionnaire dealt with the perceptions of the trustees, administrators, and faculty members concerning programs and services now offered by their colleges and the priority they would assign to various new types of programming. Respondents were asked to say whether, in their opinion, each of 25 different programs was fully implemented, somewhat developed, or not offered at all at present. For programs in the latter category, a judgment was sought concerning the priority which should be given in adding them—"high," "some," or "none." Many respondents exercised their right to give information which was not called for, *e.g.*, existing programs which they thought should be developed more completely and others which they would like to see deemphasized or abolished. Others noted that a number of the suggested programs are currently offered by the evening division, which they thought in many cases was more appropriate than as part of the regular day offerings.

The findings which are probably of greatest interest are those which show the directions in which the colleges would like to expand and, by implication, the programs and functions which they tend to reject. The six major groupings of programs are:

1. Transfer programs: the first two years of the baccalaureate degree program for students who plan to transfer to four-year institutions or professional schools.

2. Career programs: occupational training for college-age youth, including associate degree programs in the various technologies and non-degree programs which would be two years or less in length.

3. Salvage or remedial programs: for high school graduates who do not now qualify for admission, for older high school dropouts with potential for college, and for dropouts from four-year institutions who were unsuccessful in baccalaureate level programs.

4. General studies programs: for students who plan neither to transfer nor to seek employment at the technician or skilled craftsman level, and/or for freshmen who have no firm career plans when they graduate from high school.

5. Special programs for out-of-school youth and adults: various training programs related to employment; adult, non-vocational offerings for credit and without it; cultural and other types of community activities.

6. Student personnel services: various aspects of counseling and job placement.

There was considerable agreement among the trustee, administrative, and faculty groups in the several sub-groups of colleges concerning the relative priorities to be assigned to new functions and programs. It is clear from the responses that the college administrators are the most willing of the three groups of respondents to commit themselves to new functions and programs in their colleges. It is possible, of course, that their perceptions of the current program offerings are more accurate than those of the trustees and the teaching faculty and that, as a result of their knowledge, their insights into the future are clearer. The trustees were somewhat divided in their assignment of priorities to important new functions and programs, with some giving high and others giving no priority to specific programs (in effect, denying that they should be added). Their attitudes toward the several types of new functions were for the most part consistent with their general philosophy about the two-year colleges—that they should be truly "collegiate," that there are vital needs for education which are still unmet, and/or that there is confusion about the roles the two-year colleges should play in the future development of post-secondary opportunity. Faculty respondents tended to constitute the opposition group with respect to new programs and functions. They were more conservative than their administrators in assigning priorities to the development of new programs, in that they frequently assigned "some," rather than "high" priority to programs they favored generally. Their relative conservatism also was evident in their reactions to different types of non-degree programs. As a group they were much more favorable in their attitudes toward programs which would be two years in length than short-term training, and toward programs for adults needing retraining than for out-of-school youth who had received a poor start in life.

Certain cautions should be exercised in interpreting the questionnaire data for particular groups or programs. First, it cannot be said that the opinions of the entire group of trustees, administrators, and faculty members have been surveyed. All members of the first two groups and a random sample of the faculty members were asked to participate in the survey but many did not choose to do so. Some were not interested, others felt unqualified, and still others were about to give up the positions they held when they were asked to participate. There is considerable validity in the responses received in the sense that they represent the attitudes and opinions of the individuals who are sufficiently concerned about community college problems that they took time to respond. The quality of the material in the amplification of the questionnaire responses which many prepared is further evidence of their seriousness of purpose in participating. A second caution involves the very nature of the study—as an assessment or inquiry, rather than formal research. The position of the Executive Dean for Two-Year Colleges with respect to the expansion of programs was known to the colleges at the start of the inquiry and was restated from time to time during the year. Furthermore, the current position of the Board of Trustees of State University was made clear in its recent sanctioning of the development of new vocational education programs in the agricultural and technical colleges.[61] The task of the questionnaire respondents might then be construed as one of deciding whether to agree with or to oppose what has become in essence the official position of State University. The data which were obtained would appear to refute this interpretation of the questionnaire responses and the position is taken that they represent the attitudes held by the trustees, administrators, and faculty at the time they were queried.

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[61] See pages 69-70 for the description of one new program.

The three groups of respondents from the agricultural and technical colleges gave differing priorities to some programs not now offered by their colleges and agreed about still others. The council members supported with a high priority the development of new transfer programs and general studies programs for students who need to explore their interests and capabilities before making career decisions. Their second priority was given to other new associate degree programs, two-year occupational programs which might not lead to a degree, and special vocational training for out-of-school youth and adults. They tended to oppose the development of programs for high school dropouts and apprentices in training. The faculty respondents gave first priority to the retraining of the technologically unemployed, including programs which could be financed with federal funds. The faculty and the administrators also gave priority to transfer programs, two-year vocational (non-degree) programs, and general studies programs for exploration. There was a lack of support among the faculty members for vocational programs of less than two years in length, and for programs designed to accommodate high school dropouts and/or students with neither transfer nor definite career objectives. The college administrators supported the development of a full range of vocational programs, except courses for apprentices in training. The other students who would be excluded by the administrators are high school dropouts wanting post-secondary training and general studies students with neither transfer nor career objectives. Thus, the greatest amount of consensus in the agricultural and technical colleges was for the development of two-year vocational programs which might not lead to an associate degree, and for the retraining of experienced workers needing new types of employment.

In the community colleges in the metropolitan area surrounding New York City there was considerable consensus that a high priority in the expansion of functions and programs should be given to retraining technologically unemployed workers and to two-year training programs for high school graduates. There was general opposition among trustees and faculty members to short-term training programs of one year or less for high school graduates or other types of workers, and also to programs for high school dropouts who are too old to return to public school. In the community colleges in New York City, administrators and faculty members supported the development of programs to retrain displaced workers but showed little consensus favoring other new types of programs. At the same time they agreed that no priority should be given to vocational programs below the degree level for recent high school graduates and others.

The trustee respondents in the upstate urban colleges voiced little collective enthusiasm for the development of new types of programs, while registering some opposition to short-term training and to programs for students who are high school dropouts or graduates without transfer or career intentions. The administrators and faculty respondents, on the other hand, supported the development of programs for retraining adult workers and new types of associate degree programs. There was some consensus among the administrators for developing a full spectrum of vocational, non-degree programs, and for offering exploratory, general studies programs as well. However, there was opposition in this group, as in others, to apprenticeship-related courses.

Both administrators and faculty members in the non-urban community colleges supported the addition of one- and two-year vocational programs below the technician level, while opposing short-term and apprenticeship-related training. The trustees, whose response to the inquiry was generally poor, did not favor the development of any new types of programs and tended to oppose short-term programs and the extension of opportunity to high school dropouts.

Thus, despite a certain amount of apathy or uncertainty on the part of the trustees, and some pockets of opposition to serving certain types of potential students, there are a number of new programs which have good support from all groups of respondents. These could well serve as the foundation for expanding occupational education and services in the two-year colleges, below the present associate degree level. Programs which would be two years in length—perhaps some combination of work and study, without the traditional general education content—have now been given a high priority for implementation in the two-year colleges. Retraining programs for adult workers—perhaps with federal funds—are also looked upon favorably by many. There is also considerable support for the development of vocational counseling services for adults and out-of-school youth, if need can be demonstrated. On the basis of the questionnaire data, supplementary testimony submitted by the respondents, interviews, and general discussion, particular community and agricultural and technical colleges could be identified in which fully comprehensive programs of occupational education and services might be developed, if appropriate fiscal support for operation and facilities were available.

To the uncommitted, the questionnaire data might seem discouraging. However, if one starts with the commitments of the City and State University governing boards in mind, one can easily find evidence of local college willingness to expand and extend opportunity to groups of young people and adults they are not now serving.

Moving Toward Comprehensiveness

The assessment of the probability that a system of two-year colleges could and would become comprehensive under a given set of circumstances is obviously a complex task. In this instance the task is made easier by the commitment to universal opportunity for post-secondary education by the boards responsible for master-planning, and by their strong support of the community and the agricultural and technical colleges as the best instruments to fulfill this commitment. The further assumption might be made that success in one college in developing comprehensiveness would tend to bring about change in others, and that the experiencing of success with one new type of occupational program at a particular college should lead to the development of others. The inquiry into attitudes and opinions produces evidence which is encouraging and which can be interpreted as supportive of efforts to work with and through existing colleges in extending opportunity.

7. They Leave for the Best of Reasons

Attrition in the Colleges

Attrition for all reasons is ostensibly high in both the community colleges and the agricultural and technical colleges of the State University, although detailed statistics are scarce. Virtually no statistical data have been compiled on a system-wide basis. However, inferences about the incidence of dropout before attainment of the associate degree can be made from available information concerning new freshman enrollments, second-year enrollments, and number of degrees granted each year. Such statistics are an inadequate substitute for the careful follow-up of individual students which is needed. Still, they do give some idea of the magnitude of attrition and of attendant problems, if any. The assumption is made that all new, full-time day students in the two-year colleges are bona fide candidates for degrees approximately two years hence, in programs leading either to transfer or to skilled employment. Curricula are rather highly prescribed and students must enroll in a series of general education courses as well as those relating to their special fields. Little provision is now made for day students who may seek only the occupational training portion of the program, although there is nothing to prevent them from dropping out after attaining minimum training in first level courses in their specialty.

The study of attrition is relevant to the inquiry into the unmet needs of high school graduates for post-secondary education to the extent that many current dropouts might have been more successful in a different type of program. Attrition is not equated with failure in this context, except in the sense that the college has failed to achieve its objective of producing successful degree candidates. Students who signify their intention to withdraw from State University colleges are required to fill out a form which includes their reason for withdrawing (if they withdraw prior to graduation) and their plans for the following year. The information is not available for students who simply do not enroll the following semester, or who "walk away" during the term without notifying the college. The withdrawal form was useful in the present inquiry as a source of names of dropouts who planned to seek full-time employment after leaving college. The intent of the inquiry was to find out whether the dropouts had profited from their less-than-degree programs to the extent that they were able to obtain employment which was related to their college studies. Their failure to accept related employment would not in itself provide grounds for judging that the college experience had been worthless but the evaluation would obviously be more difficult. The inquiry was also designed to find out whether the dropouts were obtaining additional occupational training under other auspices, or whether they expected to return to college for additional training or related education, or both.

A major gap in both the available statistics and the current inquiry is the lack of information about the performance of the students—whether they were required to withdraw because of unsatisfactory grades (or were marginal students when they withdrew) or whether they were of the type who should have been retained if at all possible to complete a degree program. "Academic" is one of the reasons which students might check on the form as the cause of their withdrawal but the term may connote change of interest, dissatisfaction with the program chosen, or dislike for the college, as well as unsatisfactory grades. A careful study is needed of the records of the students who withdrew before graduation, in order to find out their strengths and weaknesses in the degree program in which they were enrolled. It seems reasonable to assume that many who are now failing might succeed in a related occupational program with less emphasis on general education.

Gross Attrition Statistics

A comparison of first- and second-year enrollments for the fall term in two consecutive years shows a total drop of 30 per cent in the terminal-career programs in the agricultural and technical colleges, 38 per cent in these same programs in the community colleges, and 32 per cent in the transfer programs in the community colleges.[62] The range of percentages representing the drop in enrollment was from 22 to 38 in the six agricultural and technical colleges, for all programs combined. The range was much greater for the community colleges but the diverse growth patterns in the latter institutions make comparisons difficult and perhaps invalid, particularly for the new institutions.

A comparison of the several occupational fields is of some interest. The losses may be attributable to poor counseling or selection procedures, or to inadequate information about the field prior to actual enrollment. The following percentages of loss from the first to the second year were found for the agricultural and technical colleges: agriculture, 23; business, 25; advertising, 27; engineering science, 32; industrial, 36; and health, 41. The percentages obtained for the community colleges are: liberal arts, 29; business (career), 32; advertising, 34; health, 38; industrial, 41; engineering science, 42; and business (transfer), 52. Some students in transfer programs undoubtedly withdrew after only one year in the community college in order to enter four-year institutions but the number is probably small.

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[62] Computed from statistics contained in the Fall 1964 and 1965 enrollment reports for the two-year colleges which were prepared in the Office of Institutional Research of State University.

The ratio of associate degrees granted over the period of a calendar year to second-year enrollments in the fall of the same year provides still another very rough index of late attrition in the degree programs. In the career programs in the agricultural and technical colleges, there were two degrees for every three second-year enrollments. In the community colleges, the ratio for career-terminal programs was found to be three-to-four but in the transfer programs it was only one-to-three. It is possible that students intending to transfer to particular institutions completed a second year while enrolled in courses acceptable to the senior institution, but not applicable to the associate degree. The greatest loss from the degree programs probably occurs during or at the end of the first year, rather than the second. A term-by-term analysis is needed in order to find out how far students progress before dropping out, and under what conditions, as a basis for planning new programs.

The Dropouts a Year Later[63]

A total of 687 students who withdrew from the two-year colleges in 1964-1965 before obtaining their degrees responded to a special inquiry about their employment the year following their withdrawal. Most of the students had said at the time they withdrew that they planned to work after dropping out. However, only 60 per cent were actually employed full-time and were not regularly pursuing college study. Approximately 50 per cent of the men and 70 per cent of the women who responded were thus employed. Dropouts enrolled in another college or specialized school constituted about one-half those who were not employed full-time. Many of these students were employed in part-time jobs, however, and had dropped out of their former schools in order to combine work and study. Nearly 40 per cent of the men who were not employed in civilian life were in the military service, many of them taking some type of specialized training. Homemaking was the main activity of one-fourth of the women who were not employed. Few respondents reported that they were unemployed, although some were waiting to enter the military service.

Men constituted 57 per cent of the employed group which answered the questionnaire. About 20 per cent had been enrolled at the agricultural and technical colleges, another 20 per cent at the community colleges in New York City, slightly fewer at Erie County Technical Institute, and the remainder (about 45 per cent) in the other colleges. Too few had been enrolled in the other urban colleges to warrant a separate grouping. Only 13 per cent of the employed group had checked "financial" as their reason for dropping out at the time they left officially. Nearly two-thirds of the men and more than 40 per cent of the women checked "academic" as their reason. The comments of many subsequently confirmed their failure to earn passing grades. Forty-four per cent of the women had been enrolled in terminal-career business programs, at least two-thirds of them in secretarial curricula. About 20 per cent had been in one of the several health programs—primarily dental and medical assisting—and slightly fewer in liberal arts-transfer curricula. Among the employed male dropouts, more than 40 per cent had been enrolled in one of the industrial curricula—more than one-half in electrical or mechanical, and about one-fourth in construction or chemical technology. Nearly 20 per cent had been in one of the career business programs and about 17 per cent in a liberal arts transfer program. Almost none had been in transfer programs in engineering science or business administration.

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[63] Questionnaire data for this phase of the study were collected and processed for analysis by the Office of Institutional Research. Work was carried out under the supervision of Mr. Thomas Shea and Mrs. Esther Doyle.

The dropouts' report of the relationship between their employment and the program they had pursued at the two-year college was not encouraging.[64] Thirty per cent of the women and 37 per cent of the men said that there was no relationship at all. Their job descriptions generally supported this judgment. On the other hand, about 30 per cent of the women and 27 per cent of the men judged the relationship to be "fairly" or "very" high. The evaluations of the women are rather easily summarized because of the concentration of their majors in the field of business, particularly secretarial studies. About one-half the women who perceived a high relationship between their less-than-degree programs and their employment as dropouts were trained and worked as secretaries. About one-fourth of the women who reported a high relationship had been trained and were working as accounting clerks or bookkeepers, or in other skilled office jobs. However, there was also a sizeable group of women who had been enrolled in secretarial programs and later employed as secretaries who reported no relationship between their education and job. Many made the comment that they had acquired their secretarial skills before entering college and felt that college had been helpful in broadening their outlook, but not in improving their skills. About one-fourth of the women who felt their jobs were unrelated to their training had been enrolled in some other type of business curriculum which led to either an unskilled job in business or a service occupation in another field.

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[64] Studies have shown that many students who complete their programs also enter other fields of employment than the one for which they were trained, particularly students preparing for teaching. However, there is less contention that their education was "wasted" than there is in the case of two-year college students who drop out after only one or two semesters.

Perceptions of women who had been enrolled in a paramedical program were also mixed. One-fourth of those who saw a high relationship between job and education had been in a health field, but this was also true of nearly one-fourth of those who saw no relationship. Women who had been in the dental hygiene curriculum often found related employment after dropping out of college. However, many of those in nursing and medical laboratory technology (and some in dental hygiene) took clerical jobs after dropping out where their college training was apparently of little use to them. Not unexpectedly, one-fourth of the group which saw no relationship between their job responsibilities and their prior education had been enrolled in liberal arts programs. However, few seemed to feel that college was not worthwhile. They felt that they had learned to deal with people, understand themselves better, and become responsible adults, despite their lack of employable skills when they left. A majority of these women accepted some type of office job after dropping out while waiting to be married or to return to college to complete their degree programs.

The situation was somewhat different for the male dropouts since their education was less likely to be directed toward specific job preparation. Men who had been enrolled in industrial or engineering technician programs constituted the largest percentage of both the "high" and "no" relationship groups (50 per cent of the former and 40 per cent of the latter). Those who perceived a high relationship between their incomplete training and employment found jobs as draftsmen, engineering aides or technicians, in testing, or as apprentices. The men in unrelated employment were working in unskilled jobs in industry, clerical jobs in business, or as some type of salesman. Liberal arts students constituted 30 per cent of the male students who felt their jobs were unrelated to their prior education. Most of this group held some type of office job in which they might possibly advance because of their general college training. The liberal arts dropouts (both men and women) who took unrelated employment came almost exclusively from the upstate community colleges which offered such programs for transfer. About 20 per cent of the male dropouts from business curricula found related employment while 17 per cent failed to do so. The group in related employment took jobs in sales, other aspects of retail trade, accounting, marketing, and in general office work. Those who failed to take related employment worked as truck drivers, assemblers and inspectors in manufacturing, service workers, and as unskilled workers of various types.[65] In general, the men seemed less prone than the women to express the feeling that they had gained by being in college for at least a short time, especially when their jobs were unrelated to their earlier study. They also tended to be much more critical than the women of the nature of the specialized training they had received, college policies concerning academic dismissal, and their prospects for the future.

Salaries of the Employed Dropouts

The salaries reported by the male dropouts tend to belie their contention that they accepted employment unrelated to their college training. Nearly 80 per cent gave some information about their current earnings. The median annual salary reported was slightly more than $5,000 for the men and 16 per cent were receiving salaries over $6,500 one year after dropping out of college. It is possible that the very high salaried workers are older men who entered the community college after some considerable period of work experience. Some of the job titles they reported support this explanation. However, all were bona fide students when they entered the college a year or so earlier, *i.e.,* they were enrolled full-time in degree programs. About 15 per cent of the male dropouts reported earnings below $4,000, perhaps in a few cases for part-time employment. The highest median salary was reported by the male dropouts in the Buffalo area (nearly $6,500), the lowest by those who had attended a college in New York City (about $4,400).

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[65] It would be of considerable interest to examine the college records of the male dropouts in related and unrelated employment, particularly for those who had been in programs in business and the technologies. It is possible that those who took jobs unrelated to their training (and, it might be assumed, to their interest) performed at an unsatisfactory level before dropping out. Scholarship information was not available for use in the current study which would make such an analysis possible.

The salaries of the women who dropped out were, of course, considerably lower than those of the men. The median was only $3,700 and 14 per cent said that they earned less than $3,000. None earned as much as $5,500. The women from the colleges in New York City earned the highest median salary and those in the Buffalo area the lowest, which is the reverse of the findings for the male dropouts. It seems likely that most of the women would have improved their salary potential if they had remained in college to complete their degree programs. An additional year of formal preparation and maturation might have made the secretaries and other workers eligible for more responsible positions, at higher salaries, than they achieved as dropouts. The situation is much less clear for the men, both in training-related and unrelated employment. Those in the salary range below $4,500 (the lowest one-third) could have improved their employment potential by continuing their college education, perhaps in a different program than that in which they had enrolled initially. However, the salaries for which the upper third were able to qualify without an associate degree are clearly on a par with those of some of the best of the graduates.

Expressed Interest in Further Education

The dropouts were queried about their expected need for further formal training, either in degree programs, specialized schools, or on the job. Almost none of the men and women expressed any interest in future on-the-job training for advancement or retraining. Most of the men who were interested wanted training in a vastly different field than the one in which they were then working (and often in a field unrelated to their college training). For example, a dropout from an agricultural and technical college had been in a photography curriculum, was working as a telephone company lineman, and wanted employment and training in some aspect of the transportation industry. However, the numbers are too small to warrant any generalizations except that the dropouts did not appear to count on training on the job as an alternative to completing their degree programs.

More than half the dropouts (including nearly two-thirds of the men and about 40 per cent of the women) said that they would seek some additional formal training or education. About 45 per cent of the men and women who expected to need further education said that they would complete their associate degree programs eventually, many of them on a part-time basis. Some noted that they had been forced to withdraw from college because of their poor grades (or did so out of fear of failure) and looked forward to re-enrolling the following year. An additional 40 per cent of the men expected to start work toward baccalaureate degrees in the near future, some after completing associate degree programs and others directly in senior institutions. About 40 per cent of the men seeking only an associate degree planned to do so in the same field as they were enrolled in initially. Only 20 per cent of the potential baccalaureate students expected to go on in the same field. The latter finding is not surprising since most of the dropouts had been enrolled in terminal-career programs and almost none in transfer programs in business administration and engineering science. Further, most of the liberal arts dropouts who expected to continue their education had developed professional goals which would necessitate their enrollment in another type of program. It appears that most of the men seeking baccalaureate degrees would thus be required to start near the beginning unless some credit were given for their terminal work in the two-year colleges. About 12 per cent of the men expressed an interest in formal training under auspices other than those of a college, *e.g.*, IBM or a business institute. Most of these dropouts also expected to change fields.

Thirty per cent of the women looking forward to additional education reported interest in a baccalaureate degree, and nearly one-fourth in training not offered in a college. Most of the latter group planned to attend a business school but some expressed interest in commercial art and others in stewardess training. Of those seeking college training, about one-third of both the associate and the baccalaureate degree aspirants expected to continue in their same general field. Among both men and women there was a strong tendency for the dropouts from the upstate community colleges to want to change fields when they embarked upon baccalaureate programs.

The seriousness of the intention of the dropouts to seek further formal education cannot, of course, be assessed from the present data. There is some evidence from other studies that attrition in four-year colleges has been somewhat overestimated as a result of the failure of research workers to pursue dropouts for a sufficiently long period of time. However, very little is known about the aftermath of attrition in the two-year colleges, including the work-study experience of the students after they leave college. Despite the unknowns, the responses of the employed dropouts appear to point to a need to take them into consideration in planning new, diverse opportunities for education beyond the high school.

Men in Military Service Respond

Although the inquiry was directed to college dropouts who were employed as civilians, more than one-third of the men who responded were in the Armed Forces. The relationship of their service assignment to their prior education in the two-year colleges and their future aspirations for formal education appear to be of some interest. A number of the questionnaires were filled out by parents of sons in the military service. Although information on future educational plans was often incomplete, most questionnaires yielded some useful data about their military assignments. About one-third of the respondents were serving in the Army, one-fourth in the Navy, one-fifth in the Air Force, and the remainder in the Marines and Coast Guard. Nearly one-half the servicemen for whom questionnaires were obtained said that their present assignment bore no relationship to their previous training in the two-year colleges. Most of those serving in the Army were apparently destined to be combat soldiers who would neither use their prior training nor receive any new specialized training. One-fifth of the servicemen saw a high relationship between their previous education and their military assignment, and the remaining 30 per cent saw "some" or "little" relationship. Those who saw a high relationship were for the most part in technician training programs in service or were using their technical skills in electronics, auto mechanics, or photography.

Almost 90 per cent of the servicemen whose questionnaires were complete expressed interest in continuing their education after service. Most said that they planned to work toward a baccalaureate degree, usually as full-time students with the help of the G.I. Bill. A few expressed a specific intent to work for an associate in applied science degree. The heaviest concentration of curricular interest was in the field of electronics, with a large number of servicemen planning to seek a bachelor of science degree in engineering. Most had been enrolled in technology programs in the two-year colleges but had now upgraded their aspirations to a baccalaureate degree. Others planned to work for degrees in business administration (accounting, data processing, and other fields) and in liberal arts with the intent to teach. Some of the men attributed their draft status to their forced withdrawal from college because of poor grades. They tended to resent this action by the college but were undaunted by it as they made plans for their future education. The findings suggest that this is a group whose needs for further education must be reckoned with in planning the expansion of opportunity. The probability that they will want to continue their education after military service is higher than that for the employed dropouts who may find it difficult to give up their income in order to re-enroll in college.

Testimony from the Dropouts

Many of the respondents submitted lengthy evaluations of their college experience as it related to their employment. Their comments dealt with specific curriculum problems in the fields in which they had been enrolled, preparation of the faculty, standards, and financial obstacles to continuing their education. More favorable than negative comments were received and there was relatively little incidence of blaming the college for the withdrawal. Many of the dropouts felt some compulsion to defend themselves, in a way, by citing the general benefits they had received from a less-than-degree program.

The following are a few comments made by the dropouts, which are representative of the several types of evaluations received:

Male, employed as a mechanical designer at $5,980, after two semesters in a transfer program in business administration: English courses have helped greatly with inter-office and customer communications; also the economics course is a great aid in understanding management and labor relations. "Little" relationship between job and college for he now designs mechanical components for the electrical development division of the pneumatic and conveyor division of the X corporation.

Male, employed as a computer systems technical analyst at $6,500, after three terms in a transfer program in engineering

science: although freshman engineering preparation is beneficial, an AAS degree in electronics technology would be best. "Fairly high" relationship between job and education; expects to return to college for either an AAS or BS degree in engineering. Dropped out for "academic" reasons.

Male, employed as a serviceman (maintains and repairs mechanical and electronic retail and industrial scales) at $4,420, after five quarters in an electrical technology program: with the aid of the G.I. Bill, intends to return to college next year to earn an AAS degree; now working to meet monthly student loan payments to the State Higher Education Assistance Corporation and to earn money to partially defray expenses while attending school and to meet future loan payments.

Male, employed as chief chemical technician with an A.E.C. installation at $7,000, after two semesters in a liberal arts program: college helped in gaining a promotion—not for its training, but for the fact that he had some college background while the other operator in line had none. Now enrolled part-time for an AAS degree and expects to continue for a BS degree in business management.

Male, employed as a laborer for the Anaconda American Brass Company at $6,000 after two semesters in an electrical technology program: feels he would have done better in college if he had been allowed to take mechanical drawing in high school in place of a required language; recommends that all students planning to enroll in technical curricula take one course in mechanical drawing in high school in order not to be a complete stranger to the subject in college. Plans to re-enroll when allowed to do so to work for an AAS degree in electrical technology.

Male, employed as an art associate by a publishing company at $6,800, after two semesters in a commercial art curriculum: having worked in the field before college he found that the experience of learning by working to be of greater value than the courses offered; earned a straight "A" average for one year but "didn't have any challenges or questions on the whole so did not experience any learning factor." Plans to enroll for a BA degree in art.

Female, employed as a clerk-typist in a bank at $3,045, after one semester in a liberal arts program: sees some relationship between job and college in "thinking things out without supervision . . . college does this for students—makes them think for themselves." Regrets leaving college but feels there was too much stress put on tests and too little on class participation. She apparently failed her examinations and is now thinking about seeking non-college training in foreign language or additional work in English composition.

The questionnaire inquiry which was sent to the employed dropouts represents only a token effort to evaluate the effectiveness of present degree programs in training students who withdraw before completing their degrees. The responses indicate that the dropouts are very much interested in the problem under investigation, in terms of its implications for curriculum change and for their own further education. The colleges have tended to restrict follow-up studies to their graduates, if indeed they perform any at all. Studies of the dropouts, including interviewing and educational-vocational counseling, where indicated, appear to have a high priority in any subsequent program of research leading to improved curriculum planning.

8. Summary of the Background Papers

Simultaneously with the research endeavor, six background papers were obtained which treated different aspects of the problem of expanding educational opportunity at the post-secondary level, particularly with reference to the community college and to disadvantaged urban youth.[66] The intent was to stimulate fresh thinking about the problem, without recourse to experimentation or expert testimony already reported extensively in the literature. The writers had considerable freedom in developing their assigned topics, guided by only a general question or two to point up the issues. The assignments undertaken in the six papers were as follows:

1. Statement of the major problems confronting the community colleges in helping to achieve the goal of universal opportunity for post-secondary education, from an educator's point of view;

2. Assessment of the present and potential community college role in carrying out federal manpower training and other programs for the disadvantaged;

3. Prospectus for the curriculum, in terms of general functions and needs to be met;

4. Analysis of the particular needs of disadvantaged youth which must be recognized in developing programs in the two-year colleges to serve them;

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[66] A limited number of copies of the background papers is available in the office of the Executive Dean for Two-Year Colleges. The papers will be published sometime in 1967 as part of a more complete report of the study.

5. Assessment of the relevance of the newer educational media and other innovative techniques in extending educational opportunity to the disadvantaged;

6. Statement of the broad problem of extending opportunity from the point of view of the college student personnel worker.

The Challenge to the Community College

Leland L. Medsker asserts that the community colleges are now at a junction where they must decide whether they want to be the instrument for extending and expanding educational opportunity, and how or by whom such decisions will be made.[67] The first decision is two-fold, specifically, whether to maintain an open-door admissions policy and then, if so, whether to establish programs suited to the varied abilities and interests of the students who will enroll. Both decisions are linked inextricably to problems arising from increased participation of college faculty members in policy making in instructional matters. As enrollment pressures increase, the easiest path for the community colleges to follow is to admit only the best qualified applicants who, with few exceptions, will want to enroll in university-parallel and high level technician programs.

Medsker correctly points out that the determination of the clientele of the college is a long step in the direction of setting purposes and goals. He cites the growing societal need for opportunity for universal post-secondary education. Thus, the question becomes one of what type of institution will effectively offer opportunity to the lowest group of high school graduates, not one of whether they should be educated. Alternatives such as the Job Corps and a new type of institution are suggested and then reasoned away. His own conclusion is that society cannot afford to deny opportunity to anyone and that the community college should willingly accept the challenge posed by open-door admissions.

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[67] Leland L. Medsker, *The Community Colleges at the Crossroads: Where Now?* (Berkeley, Calif.: Center for the Study of Higher Education, University of California). The paper was first presented at the Fall Conference of the California Junior College Association in 1965.

He goes on to say that the job is only half done with the decision to admit all to the community college, for admission, *per se,* does not guarantee opportunity for the lowest ability group. He cites attrition figures as testimony that many students are not now appropriately served in two-year degree programs. He suggests the need for evaluative criteria other than grades, particularly for the non-transfer student who may not care to qualify for an associate degree. Since about two-thirds of the entering students do not transfer, the devising of appropriate programs leading to employment or other adult activity presents a particularly challenging problem in curriculum construction. He does not assume that all non-transfer students should enroll in technology programs in engineering, business, health services, and other professional areas. Instead, he sees a need for a level of occupational program below the technologies into which large numbers of high school graduates might fit. He proposes no easy solutions but warns that other agencies will move to meet the needs for occupational and/or other education of the large numbers of young people not now served, if the community colleges fail by indecision or rejection.

Although his focus is on admissions and instruction, Medsker pays more than lip service to the need for vastly improved student personnel programs. He also calls attention to the related problem of educational "climate" in the community college and to the recent incidence of student unrest and discontent on campuses where the individual student has been lost sight of. Finally, Medsker addresses himself to the emerging problem of increased faculty participation in decision-making in matters of college policy, and to the need for effective cooperation among board members, administrators, and the teaching faculty in determining the future course of the colleges. He also makes note of the related problem of relationships between the local colleges and the state agency responsible for coordination. He ends his analysis with a call for a major commission to be created to investigate the psychological and sociological needs of the students to be served and the implications for curriculum, instruction, and service.

John P. Mallan's assignment was to make an assessment of some of the new federally funded programs for manpower training and service to disadvantaged students, in terms of their appropriateness to community college functions and services.[68] His analysis includes the views of both federal officials and college administrators concerning manpower training programs under the Office of Education and anti-poverty programs under the Office of Economic Opportunity. He begins his assessment with a brief analysis of arguments for and against community college participation in these federal programs. History and tradition are said to be on the side of the colleges, as evidenced by their philosophy of open-door admissions and their long commitment to occupational education, the disadvantaged, and community service in general. He calls attention to state and national commitments to the provision of comprehensive systems of post-secondary education, into which some of the federal programs would fit very logically. On the negative side is the relative youth of the community colleges and the slow pace at which they have been able to develop their occupational education function. There is the even more basic question of whether a college environment is best for the types of clientele for whom the federal programs are designed, *e.g.*, those with less than eighth-grade achievement. Thus the arguments are inconclusive except as they point to the community college as one of a number of social agencies in which the federal programs might be executed.

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[68] John P. Mallan, *The Community College and Federal Programs for the Disadvantaged* (Washington, D. C.: American Association of Junior Colleges).

The discrepancy between the philosophic commitment of the colleges to occupational education and the numbers of students enrolled in such programs might be viewed as alarming. Students and programs tend to be concentrated in a rather small number of states, with low incidence in the northeast where public two-year colleges have been slow in getting started. Still, there is good evidence of positive action by the community college leadership across the country to stimulate interest and development in both vocational and technical education, not only in the colleges but also in federal and other agencies and organized groups. The community colleges are without question expanding, both in enrollments and in the establishment of new institutions, and with expansion will come an increase in absolute numbers of students enrolled in occupational programs, if not in the proportion of such students in the total student body.

Mallan cites statistics about community college participation in Manpower Development and Training (MDTA) programs from a 1964 report. At that time about 10,000 trainees in 267 projects had been funded—far more than in four-year colleges but many fewer than in programs under public school or other auspices. The programs in community colleges tended to be confined to a few states, as is true of other occupational programs. Mallan reports that the present director of the MDTA program in the Office of Education is skeptical about community college participation, despite demonstration that they can do so effectively. His preference is for skill centers, which tend to resemble colleges but do not have degree-granting power. The director appears to doubt the depth of the community college commitment to vocational education and to view the qualities of professionalization and institutionalization as liabilities, rather than assets. He also is skeptical of the ability of the colleges to be sufficiently flexible, fast-moving, ingenious, and, in essence, viable to be able to undertake the kind of programming required by MDTA. Finally, he has found comparatively little interest among the colleges in offering the programs. Mallan's report on the Office of Economic Opportunity (OEO) programs is scarcely more encouraging although some of the specific programs seem entirely appropriate for two-year colleges. The Upward Bound program probably comes closest to embodying present community college functions but fewer than 10 per cent of the applications for programs for the summer of 1966 came from two-year colleges. There appears to be a problem of staff time and capability in the colleges to keep abreast of the very many new federal programs and to develop the necessary plans and applications for those which are appropriate, as well as interest and desire to participate. OEO officials appear to be inclined to agree with the MDTA director in doubting the ability of the colleges to be flexible and to adjust to changing needs.

Attitudes of community college leaders are about as one might expect. Those who are deeply immersed in occupational education want to do more (and to see others do more); those who are struggling for academic status for their colleges in a defensive situation doubt whether they can take on the somewhat onerous task of expanding occupational education at the present time. Few appear to doubt the validity of the challenge to the community colleges to assist in the development of MDTA and OEO programs, but not all are equally ready or prepared to take it up. The skepticism of the federal officials is not without foundation. However, this by no means precludes particular colleges and state systems of colleges from playing as active a role as they are able.

A Prospectus for the Curriculum

Charles C. Collins assumed the broad assignment of making a case for the community college, while focusing in particular on the needs of youth who will not transfer to four-year institutions.[69] He presents his case in terms of four curricular functions—general education, the developmental function, vocational-technical education, and the transfer function, all within a necessary set of philosophic assumptions. These involve the nature of man and his educability as a rational director of his destiny, as well as a wage-earner. Still other assumptions deal with education as an instrument of social and economic mobility for groups, as well as individuals, and the capability of society to afford this means. Collins's final assumptions concern technology as it relates to training for employment and, conversely, the values of education beyond fitting students to earn a living.

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[69] Charles C. Collins, *Curriculum in the Community College* (El Cajon, Calif.: Grossmont College).

Collins appears to assume that the college should be able to retain all students for a full two-year program, which will not be the same for all students, and then asserts that all must have a certain amount of general education during that time. He recognizes the need of a large proportion of the students to obtain developmental (remedial) instruction in order to profit from general education but puts general education first in his schematic. His prescription is quite conventional, in terms of the areas or disciplines which should be included. However, he argues for a new approach in recognition of the fact that most students will not need to concern themselves with the problem of whether a particular general education course "will transfer." He also uses general education to make a distinction between the trade school and the community college, with his argument favoring the latter unequivocally. Throughout his discourse he injects the role of the local college curriculum committee in the decision-making process—and rightly so. He assumes, at least implicitly, that the committee is committed to the comprehensive community college idea, in terms of the clientele to be served, and that its deliberations should be made with the needs of the majority in mind, who are the non-transfer students.

Collins further assumes an open-door admissions policy, under which many will be admitted who will be more or less deficient in the basic skills of reading, speaking, writing, and computing. He rejects the traditional standards of competence and instruction leading to proficiency, and suggests that more functional goals (and means of achieving them) can be found, particularly for the non-transfer student who does not enroll in a technology curriculum. He correctly points to the very large diversity in the characteristics of the student body which will be admitted under open-door admissions—those eligible for the elite universities and the near-dropouts from high school with only eighth-grade achievement in the basic skills. He stresses the communication aspect of the developmental function—verbal and numerical—and pleads for a realistic approach to the establishment of objectives for the so-called terminal students.

A strong case is made against short-term vocational training without general education. Collins points to the increasing need for trained personnel in service occupations in both the public and the private sectors of the economy, *e.g.*, the health fields and business. He denies that the occupational curricula are any less demanding of learning capacity than transfer courses at the lower division level and insists, furthermore, that both groups must be prepared in the tool subjects in order to succeed in lower division courses. Collins suggests that obsolescence in occupational training can be at least minimized by building programs in the various technologies around a core of courses common to all specialties within that category. Greater mobility in employment should result, as well as more flexibility in choices made during college. He also denies that the so-called terminal curricula are irrevocably terminal, pointing out that some secretarial students become teachers, police science majors become criminologists, and technicians go on to engineering programs. Collins does not underestimate the problems connected with planning appropriate curricula for the two-thirds of the students who will not transfer and urges the involvement of business and industry in securing what he calls "serious corrective effort" in behalf of these students.

No defense is made of the transfer function in Collins's paper. Instead, he urges balance among the functions and increased recognition of the non-transfer functions. He deplores the considerable confusion which exists, *e.g.*, the role of the universities in prescribing the curriculum, the status attached to transfer courses and objectives, and the nature of general education vs. transfer programs. Collins's paper is probably more controversial than the others but his assumptions are clearly stated and his prospectus for the community college is well developed.

The Needs of Disadvantaged Youth

Jerome M. Ziegler was asked to reflect on the characteristics and needs of disadvantaged youth which need to be taken into account in planning post-secondary programs for this group.[70] His analysis is based on his considerable experience with disadvantaged youth in the ghetto and in the Job Corps. He begins by pointing out that the disadvantage (or deprivation) is not really cultural but, instead, intellectual, economic, and social. Inner-city youth, he asserts, have their own sub-cultures which differ from that of the vast middle class which they may try to emulate. However, their intellectual deprivation is such that they are quite unaware of the range of possibilities open to them or the means to attain them. Poverty is described as a constellation of elements producing conditions of social handicap, not all of which can be the responsibility of the educational system. Ziegler asserts the need to understand the background, psychology, emotional set, and experience of the disadvantaged in order to plan for their education.

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[70] Jerome M. Ziegler, *Disadvantaged Youth and the Two-Year College* (Rodman Job Corps, New Bedford, Mass.).

Higher education is depicted as a generalized goal for young people and adults from all backgrounds. It is equated by them to obtaining a good job and thus to earning a good living and gaining higher social status. However, for the disadvantaged the goal is an undifferentiated one since they have had little opportunity to gain insight into their own abilities and interests, or to obtain guidance about educational and vocational opportunities. They have little concept of work for its own sake (or for social service) and see the job only as a means to money which will buy goods and give status. Ziegler is critical of public school counselors who tend to shunt the disadvantaged into industrial arts or vocational programs, without attempting to determine their intellectual potential. He points out that disadvantage may be cumulative over the years, with the result that the students are overage for their grade and behind their classmates in their attainment in the basic tool subjects. With this group of students it is exceedingly difficult to determine talents and abilities accurately, and to help them define their interests in such a way that programs can be developed which will be congruent with their abilities (often latent) and interests. Ziegler singles out counseling as the most important element in programs to be created by the two-year colleges for the disadvantaged. He stresses the need for a "helping relationship" in counseling, to establish a feeling of trust and to relieve hostility, suspiciousness, apathy, and other feelings which may detract from their ability to profit from instruction.

Ziegler then distinguishes between the needs which most students have as they enter college and the particular needs of the disadvantaged. In the former category fall the need for good counseling (and for vocational guidance in particular), remedial instruction, the development of personal goals, marketable job skills, and some sense of the value of continuing education. The disadvantaged are said to have a particular need for the development of social skills, as well as intellectual, *e.g.*, the ability to get along with other people, to dress appropriately and to behave in a generally acceptable manner, and to handle both internal and inter-personal conflict. Furthermore, they have need to experience success not only in their studies, but also in some extracurricular activity and in employment. Finally, there must be a wide range of vocational and technical education programs for them to choose from, in addition to the good grounding they need in general education.

The unique problem of the two-year colleges is well illustrated by the point that their students (particularly the disadvantaged) have many needs but the time available to help them is shorter than any other period of schooling. Ziegler makes a number of specific recommendations about programming which grow out of his analysis. First, he recommends conversion to a year-round operation in the colleges in order to accomplish all the tasks he has set for them, with frequent re-cycling of programs. He also suggests that there be shorter but more numerous vacations and more flexible daily scheduling (perhaps on a round-the-clock basis) which would enable students to combine work and study. Ziegler favors increased on-the-job training for disadvantaged youth, with opportunities in business and industry "intimately connected" to the course of study. There is need for a cycling of work experience and classroom instruction so that they will not only complement one another, educationally, but also serve to reinforce feelings of success gained in one situation or the other. Above all, Ziegler recommends that the community be made a full partner—in a sense, a living laboratory—in the college operations, to the end that what now tends to be a middle class institution, "managed by middle class people," will learn about the urban disadvantaged and be able to adapt to their needs and values.

New Media and Other Innovations

Lewis B. Mayhew began his analysis of the applicability of some of the newer approaches to instruction to the education of the disadvantaged by characterizing their conditions of poverty and deprivation.[71] He points out

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[71] Lewis B. Mayhew, *Innovation and the Educational Needs of Urban Youth* (Stanford, Calif.: Community College Planning Center, Stanford University).

that almost none of the experimentation with new devices and techniques has involved the disadvantaged of college age and that the analysis must therefore be speculative. The focus is on the Negro in the inner city and on the factors which condition him from birth to expect less of society than is given the middle class white child. The values and interests which set him apart from other segments of society are quoted from the works of Frank Riessman and Kenneth Clark. Mayhew then asks if it is any wonder that the Negro youth from the ghetto is poorly prepared and unmotivated to compete in the very school situation which might free him. He finds hope in Clark's position that the Negro child does not learn because he is not taught effectively, and that this is so because those in positions of responsibility do not believe that he can learn and do not behave as if he could.

On this note of hope, Mayhew proposes three "minimum educational objectives" toward which the new media might contribute. The first, which has been echoed by the other writers, is the offering of universal opportunity for education at least through grade fourteen. The second is person-centered and is stated as the restoration of self-esteem to these young people who have lost faith in themselves and in society. Finally, Mayhew asserts that education should prepare youth for "full participation in the main stream of American life."

Many of the media Mayhew describes are now fairly familiar to anyone interested in the field. Among them are techniques for extending personnel resources by use of open- and closed-circuit television to expand the group taught by the outstanding teacher or lecturer, or to reach into the homes of students who may come to the campus only occasionally; amplified telephonic communication for a less expensive system of large simultaneous lectures in many different locations; and the tutorial laboratory system in which the student is on his own to pace his instruction, with individualized help from the instructors when it is needed. Mayhew's second category of media includes inexpensive television equipment to transmit field exercises and special events; video tape recordings of special value, for repetition to successive classes; motion picture film; and large transparencies and overhead projection. Somewhat more exciting is his third category of techniques for individualized instruction, ranging from simple programmed texts and teaching machines to expensive, complex, computer-based techniques for instruction. The University of Illinois' experimentation with its PLATO computer-based instruction of large groups holds fascination for student and instructor alike in its adaptation to individual needs of various kinds.

Mayhew then moves on to the manipulation of time and space in efforts to improve the effectiveness of instruction. He first mentions the single course plan which extends over many weeks and various work-study programs. Then he goes on to the trimester and quarter systems, together with some innovative scheduling devices. Finally, he discusses the rearrangement of space, both of a total campus and within a campus. He rebels against the traditional campus plan and proposes a new campus-without-walls which fits particularly well in the urban areas, including the inner city. Mayhew also concerns himself with the differentiated planning of building or campus space in which the students would participate directly, *e.g.*, in expressing their preferences about study, social, tutorial, and other areas. He stresses variety, without catering to student whims in planning. The learning resources center constitutes his last category of space innovation, with examples from Stephens College.

Mayhew's analysis of implications for the disadvantaged contains many proposals. First, he boldly asserts the need to bring the campus (or some parts of it) to "where the students are," even if it be in the inner city. He lists devices and techniques for maximizing the effectiveness of such a plan, despite its overtones of segregation. A second concrete proposal is for places away from home for disadvantaged students to study, and for abandonment of block scheduling for such students, in favor of a schedule which would keep them on the campus for extended periods of time. Still another important proposal is for the creation of appropriate reference groups for the disadvantaged, for identification and support as needed. Mayhew suggests that competition among individual students be replaced by devices for group or team competition, because of their particular constellation of needs and prior experience in school. Related to this is the need for built-in expectations of success on the part of these students who have failed for so long, by the use of new media for individualized instruction and by vastly improved counseling and guidance.

Mayhew concludes that education for the disadvantaged must always keep vocational preparation in sharp focus. He suggests flexible scheduling with work experience built into the program as appropriate. Attention is properly called to the expense of such innovations but Mayhew also asks whether society can really afford not to educate well the least of its members.

The Student Personnel Point of View

Jane E. Matson undertook the task of analyzing the social role of education from the vantage point of the student personnel worker.[72] She traces the history of increasing school attendance and graduation, and the role education has played as a chief means of achieving what is variously defined as "success." She then comments on recent technological developments and the concurrent "revolution of expectation," as factors in the changing demands for educational opportunity, particularly at the post-secondary level. Considerable attention is given to the nature of dropouts who do not acquire their maximum potential benefit from school attendance. She reasons that some students have been unable to relate school experiences to any meaningful personal goals, while others have been unable to learn in a way which is congruent with their expectations of self and others in the world. Further, she points out that some have only very diffuse goals which are not within reach. Her last group of early leavers have realistically defined goals but circumstances beyond the control of the school make continued attendance not feasible.

Matson points out that throughout history there have been a variety of routes or accesses to the realization of personal goals outside formal education, which also represent in the aggregate the greatest "good" to society. The odds have been favorable thus far that an individual could overcome a handicap resulting from early school leaving. She goes on to suggest, however, that major developments are in the making which will affect the role of education in society. The demand for human labor in the continued expansion in the economy, the impact of automation at its fullest, the undifferentiated increase in the population, and the changing demands of the labor force—all these are factors which will have their effect on the role of education. The net effect of these factors is to create a critical need for workers with highly specialized skills and abilities and, at the same time, to leave outside the mainstream of mobility a large proportion of the population without the requisite potential for these occupations. These become the potential dropouts or "push-outs" in education, and then the unemployed and social discontents who cannot find a proper role in society.

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[72] Jane E. Matson, *The Social Role of Education: Some Changing Dimensions* (California State College at Los Angeles).

School has traditionally been seen as the answer to the problem—stay in school, get more education, stay out of trouble, and then, at the end, there will be a socially useful role to play. Matson asserts that therein lies the challenge—to help young people find their "socially useful role" and prepare for it, and that the success of the American educational system will be evaluated in these terms. If success is not adequate, society will look to other means of enabling successive generations to achieve a sense of social value and personal worth. She translates the challenge into a need to shift the focus so as to include the entire spectrum of society seeking educational opportunity and services, and hence a need to redefine goals and objectives.

Matson then sets forth the major tasks to be faced, particularly by post-secondary education, as follows: to define the overall task of education as a social institution, in realistic terms; to effect the shift of the locus for experiencing closure on at least some portion of the formal educative process from high school to "college"; to improve techniques for differentiation of behaviors, goals, and outcomes, and for "prediction" in terms of the self-realization of the individual; to assist young people in goal-identification which is compatible with their own attributes and the societal good; and to furnish an environment in which all these can be carried out successfully. Matson joins the other authors in asserting that society can afford to do these things well, and that there is no real alternative in the broadening and extension of educational opportunity which lie ahead.

9. Summary of the Inquiry

Framework for the Study

At a time when the provision of opportunity for further education for all high school graduates is emerging as a national goal, the ability of the community colleges in New York State to serve those still without such opportunity is being seriously challenged. The challenge came first in a report of a legislative consultant late in 1964, which contained the recommendation that a new type of "youth college" be created within State University, to offer programs for those not now appropriately served by the community colleges. The proposed clientele includes the disadvantaged in urban areas and the bottom quarter of the high school graduates, among others. After reviewing the report and the 1964 Master Plan for State University, the Governor took action in requesting the Trustees to consider the establishment of a new type of urban college, both in the ghetto areas of New York City and in at least one upstate city.

The Trustees asked that a study of need be made before establishing what would in effect be a third type of two-year college in State University. The study began early in 1965 with the appointment of a study director and a three-member steering committee, with staff for field work added in the fall. In the meantime, the Governor included a request in his new budget for funds to start four pilot programs in the Fall of 1966, two to be located in New York City and two in upstate cities, primarily to provide occupational training for disadvantaged urban youth. The scope of the study was broadened beyond the boundaries of the urban ghetto and the needs of youth residing therein, when it became evident that the new programs would be funded without further study of need for a new type of institution.

A rationale for the expansion of the study can be found in the various policy statements of the several boards responsible for the coordination of higher education in New York State. The Board of Trustees of State University, the New York City Board of Higher Education, and the Board of Regents of the University of the State of New York have all voiced a strong commitment to the expansion of educational opportunity at the post-secondary level, commensurate with the national goal of universal education through grade fourteen. However, expansion in the community colleges in New York State is heavily dependent upon support (financial and other) at the local or county level. Growth has been steady but slow, in light of the total job to be done, as local sponsors of the nearly 30 community colleges approve budgets and vote funds which are matched by the State. The net effect has been the slow downward extension of opportunity, inch by inch, with little prospect of reaching the lowest quarter of the high school graduates without some special incentive.

The problem as it involves the community colleges is exceedingly complex. Assuming a national and state commitment to expanding opportunity, the first question which planners must face is whether the community colleges do in fact want the assignment of extending opportunity to all high school graduates and of expanding programs to accommodate them. If the answer is yes, the next question might well be whether local sponsors can or will) provide funds quickly enough to accommodate all who will wish to enroll. Still another question of considerable importance is whether the community colleges can attract the kinds of students who are not being served now, *i.e.*, will the students-to-be view the community college as offering the right kind of opportunity for them. Finally there is the question of whether "more is worse," *i.e.*, whether a vast expansion of the community colleges would mean a lessening of their presently fine reputation for offering high level technical and liberal arts education.

The need for some level and degree of expansion of opportunity can scarcely be denied, for New York State now ranks only in the middle among the states in the percentage of its high school graduates going to college. Furthermore, it seems unlikely that the percentage now entering college is as high as 50. The achievement of this rather modest percentage at present depends heavily upon opportunity offered New York State residents by colleges and universities in other states, some of which hope to persuade them to stay and become part of their trained manpower pool. Not all of the problems and questions posed are researchable. Value systems play an important role in all educational planning. The present inquiry was undertaken within a framework of assumptions about college attendance, the need for expansion, institutions and programs, and financing. The goal of universal opportunity for post-secondary education was taken as a point of departure, and the community college was assumed to be the most logical instrument for achieving the goal, until proven unwilling or incapable of doing so. It was further assumed that high school graduates differ very widely in their motivation, goals, abilities, prior achievement, and readiness for college at the time they graduate. For this and other reasons, it was assumed that the mere offering (or extending) of opportunity to attend college would not be enough, and that expansion of programs, curricula, and services was vitally needed in order to equalize opportunity. Finally, the need for much greater flexibility and ingenuity was assumed in matters of financial aid, scheduling, support, and teaching and learning, generally.

The major phases of the inquiry included an assessment of the manpower situation, and a review of what is being done by other agencies, institutions, and special groups, in New York State and elsewhere, to solve the dual problem of producing trained manpower and meeting the needs of young people for educational opportunity. Original research was undertaken in three areas as part of the inquiry. First, urban high school seniors with no plans for college and their parents were interviewed in order to ascertain their feelings about their need for further education and the conditions under which they would seek it. In addition, an assessment was made of the attitudes and opinions of trustees, administrators, and faculty members in the two-year colleges, with respect to the extension of opportunity and the expansion of programs and services, particularly below the associate degree level. The third research endeavor involved a follow-up study of the dropouts from the two-year colleges who withdrew in order to seek employment, to find out whether the training they had had in college was related to the work they were doing, and what plans they had for further training or education. The other major phase of the inquiry was the commissioning of six background papers on various aspects of extending opportunity, particularly with respect to urban, disadvantaged youth. The papers dealt with the questions and challenges the community colleges now face, the relevance of the federally funded manpower training and other economic opportunity programs to community college functions, issues in curriculum, characteristics and needs of disadvantaged youth, innovation and the new instructional media, and the challenge from a student personnel point of view.

The Manpower Situation

The need for more trained manpower in New York State is indisputable at the professional and technical level. Particularly critical is the need for personnel in the health field, ranging from the physician-specialist on down to the home health aide to help care for the elderly. The new Medicare program has served to multiply existing shortages of personnel by an as yet undetermined factor. Shortages of technicians in engineering and science fields are only slightly less detrimental to the nation's welfare and could be critical in relation to its security. But against the finding of several shortages of highly trained personnel must be weighed the fact only one-third of the employed labor force in New York State works in jobs of high skill, and up to two-thirds of all jobs to be filled do not require post-secondary education, or more than very brief on-the-job training. The two largest categories of workers are clerical and operatives. If service workers are added, more than half the labor force is accounted for by these three groups. At the other extreme, technical occupations which are science- and engineering-based account for only 2.5 per cent of the employed labor force. The addition of engineers and scientists brings the percentage up to 5, but it is expected to fall considerably short of 10 per cent of the labor force ten years hence.

Federal Training Programs

Justification can be found for establishing an undetermined number of new programs for training professional and technical personnel. However, such programs would probably do little to meet the needs of the lowest quarter, third, or even half of the high school graduates for further education leading to employment at some optimum entry level. Single-occupation programs and skill centers have been funded for youth and adults under the federal Manpower Development and Training Act in all areas of the State. The basis for establishing new programs and recycling old ones is the local need for workers with particular skills which can be acquired in short-term programs, *i.e.*, not more than two years. Job placement is virtually assured, stipends are given during training, and counseling and remedial instruction in the tool subjects are given throughout training, as needed. The original intent of the Act was to serve the hard-core unemployed with less than an eighth grade education. However, experience in New York State has shown that a large percentage of the trainees attracted to the programs are high school graduates, although their actual achievement may be no higher than the eighth grade level.

In theory, at least, the federally funded programs should be able to accommodate a fair share of the young people who need occupational training after high school below the technical (or other associate degree) level. In reality, there have been quite serious problems in filling quotas of trainees, despite widespread publicity and the presence of employment counselors in the high schools. One of the problems to be faced in expanding educational opportunity is the division of labor between the two-year colleges and the other agencies in carrying out federally funded programs for occupational education not leading to a degree, and the eventual question of whether the colleges should plan to absorb the functions performed by the programs when federal support is withdrawn.

New Jobs for New Programs

Anti-poverty and other new social service programs are expected to create needs for workers at the sub-professional level to fill jobs which may not now exist. There is little evidence that planning is taking place with regard to these needs, except in the health field where only a good start has been made. If the Great Society programs are to be carried out effectively, there must be a wide range of personnel with varying levels of training and a general commitment to social service for employment, in the fields of housing, social welfare, education, urban renewal, criminology and law, and other service-related professions. Although experience is lacking, it seems plausible that many young people who could not succeed in science-based technology programs could do so in programs oriented toward the social sciences, if an effort is made to adapt instruction to their needs and abilities at the time of entry into the program. Still another area in which considerable expansion of programs for urban youth is indicated is business. There is a wide range of occupations for which training could be provided at the post-secondary level. The attraction of business for both the disadvantaged and for young people not now going to college is very strong. Imaginative planners should be able to develop integrated curricula in business technology which would make it possible for students to exit at a number of points in the two-year sequence, with skills and orientation which would make them readily employable.

Other Opportunities for Training

The public schools and colleges and the federally funded programs are, of course, only two of many sources of opportunity for training at present. On-the-job training is increasingly recognized as a preferred method, by employer and trainee alike. Proprietary schools have long served many New York State youth seeking less-than-degree training, particularly in the fields of secretarial and other business studies, cosmetology, nursing and other paramedical areas, and various trades. Formal apprenticeship programs are also available to a relatively small percentage of young people seeking craft training. Finally, the role of the Armed Forces in offering opportunity for specialized training is still another factor of somewhat indeterminate importance in mid-1966, as the war effort continues to accelerate and as discussion commences concerning the desirability of requiring some type of national service of all young people.

Implication for Counseling and Program Development

There are no easy answers to the problem of manpower needs in relation to the needs of urban youth for some type of post-secondary education. It seems clear, however, that the starting-point must be the young people for whom no opportunity now exists—their socioeconomic backgrounds, interests, goals, native ability and special talents, and their prior achievement in school. Care must be taken to make very sure that occupational guidance, orientation, and/or education is not given for jobs which no longer exist or which are in short supply. At the same time, it appears that community college and the federally funded manpower programs might well be differentiated, at least initially, in terms of their basic orientation—the colleges toward student needs, the federal programs toward manpower shortages.

Students View the Problem

High School Senior Interview Study. Reports from all sources lead to the conclusion that college enrollment pressures are great and still increasing, and that there is either a real or a potential shortage of space for all who will seek admission. This was particularly true of the colleges under the New York City Board of Higher Education during the winter and spring when the study was being carried out. The feelings of high school seniors who had not made application for college by mid-year were unknown, and a decision was made to interview samples of this group and their parents in the urban areas. The choice of the interview group was made on the grounds that the type of student who had applied but who did not quite meet current admission standards would probably be accommodated in due time in existing types of colleges and programs. Therefore, the challenge in the expansion of opportunity was believed to rest with the non-college-bound seniors. In addition, small samples of out-of-school youth were interviewed in the upstate cities who had not gone to college and who were still residing in the city where they had graduated from high school.

Most of the students interviewed were enrolled in general studies or vocational programs in their senior year. Two-thirds of the sample was male. About one-fourth had been out of school for nearly a year. Samples of 100 students were interviewed in each of the six upstate cities and about 300 in New York City. Parents of about half the students were also interviewed. The major dimensions of the interviews were the students' plans for the following year and beyond, and the certainty of their plans; their general feelings about attending college and problems associated with doing so; their felt need for and interest in obtaining some type of further training after high school; their feelings about their high school experiences; and some information about family characteristics. Students who expressed some interest in post-secondary education were queried at greater length about their occupational interests and the conditions under which they seek additional formal education, *e.g.*, availability in college or elsewhere, in work-study programs, with low-cost loans, and while living away from home. Parents were asked about their perceived influence on their children, their feelings about education and the values to be derived from it, and their interest in having their son or daughter continue in school and the conditions they would set for doing so.

Findings. Seniors not planning to attend college were found to be a very heterogeneous group with respect to their high school experience, capability, and background characteristics. Samples in the upstate cities were more so than those in New York City, since the latter were drawn primarily from schools serving the ghetto areas. It is abundantly clear from the data that "going to college" was not the dream of a large majority of the group which was interviewed. Their comments showed that they never really felt a part of the group now experiencing strong pressure for college attendance. Many had been told by counselors or others before they entered high school that they simply were "not college material" and they tended to live up to this characterization in subsequent years. Others perceived from an early age that they would be unable to cope with the economics of going to college and so did little to qualify for either admission or financial assistance while they were completing their high school programs. Aside from the sizeable group which desired no more than a secure job after high school, a rather large group yearned for travel before settling down to employment or marriage, or both.

Few of the students interviewed seemed to feel cheated by their inability to attend college. They accepted their fate and made other plans, in most cases with the attitude that a college education was important but that they "could make it without college." There was a feeling on the part of most that they would need some kind of further training after high school while they were employed, but not necessarily in college. All of the students interviewed expected to be doing something after high school—employment, military service, and/or training other than in a college environment. Some of the girls planned to marry shortly but even they expected to seek employment after high school. The attitudes of many of the seniors toward proposed opportunity to attend college was one of "Show me!"—that college was economically feasible, that it would pay off in better employment, and that their programs would not be cluttered with what they regarded as worthless academic courses. If interested at all, they expressed a strong preference for work-study programs over full-time college attendance. Most of the senior boys had been working at least part-time during high school, many of them at rather good hourly wages. Few expressed interest in obtaining a loan in order to attend college, even under very favorable repayment conditions.

Implications for Counseling. The need for more and better counseling was very obvious from the interviews, from junior high through the senior year. The students were clearly a neglected group. They had survived to the senior year by staying out of serious trouble, but had been overlooked by counselors since the early decision that they were "not college material." Parents who were interviewed appeared to value college training highly and to be willing to support their children's interest in further education to the best of their ability. However, many felt that their children had no interest at all in college, had demonstrated little ability to do good work in school, and would probably "make it" without college if they made up their minds to do so. In general, the parents appeared to be more enthusiastic about the possible extension of educational opportunity than their children. However, neither the parents nor the students had any accurate information about the present community colleges —costs, programs, requirements for admission, or overall functions and purposes.

It is possible that some of the seniors are suited for programs now offered, with proper guidance and remediation. Others had totally unrealistic occupational goals requiring training far beyond their intellectual grasp, while a considerable number could best be characterized as apathetic about their futures. Military service was seen as an opportunity for specialized training by some, and as an excuse to avoid making plans for the future by others. From it all comes the clear implication that good counseling and communication are very essential ingredients of any program to extend educational opportunity to young people not now planning to go to college.

College Dropout Study

A modest follow-up study was made of students who withdrew from the two-year colleges before completing their degree programs. The inquiry was confined to dropouts who expected to seek employment when they withdrew. The purpose was to ascertain whether the dropouts had in effect achieved some non-degree goal which they had set for themselves, and the extent to which they thought that their employment was related to the training they had received. Questionnaires, which were mailed one or two semesters after withdrawal, asked the dropouts about the nature of their employment, its relation to their college training, and their expectation of need for additional college or other training. The implications of the testimony from the dropouts might point in two directions—the establishment of one-year programs for high school graduates seeking occupational training without general education, and the expansion of programs for young people with some college and meaningful work experience.

Nearly two-thirds of the men and more than 40 per cent of the women said that they dropped out for undefined "academic" reasons, which included unsatisfactory grades in many cases. About 30 per cent of the dropouts said that there was a fairly or very high relationship between their education and employment; a somewhat higher percentage said that there was no relationship at all. A majority of the women had been in business-secretarial or health programs before dropping out and were thus fairly well equipped to find skilled employment. Many who were employed as secretaries said that they had acquired the requisite skills before entering college. Some thus judged college to have little relationship to their jobs, while others felt that they had gained from general education and just from the experience of being in college for a time.

More than 40 per cent of the men had been enrolled in one of the industrial curricula, *e.g.*, mechanical and electrical technology, which in many cases did not lead to related employment after they dropped out. Dropouts from these programs seemed to have the strongest feelings—mostly negative—about their college training and subsequent employment. Some found skilled jobs as draftsmen or engineering aides, or entered apprenticeship programs. However, others—perhaps the academic failures—accepted unskilled jobs in industry, clerical jobs in business, and sales positions. Liberal arts students, particularly from the upstate colleges, fared less well than dropouts from career programs in finding employment even remotely related to their studies. Some held office jobs in which they felt they might advance because they had attended college but others seem not to have gained at all from college. Men, generally, seemed to feel that they had profited less from college than did the women, and were more inclined to be critical of the training they received.

Few of the dropouts expressed any interest in future on-the-job training. However, nearly two-thirds of the men and about 40 per cent of the women thought that they would want some additional education or training. Most of these dropouts planned to work for a degree when they returned to school but wanted to enroll on a part-time basis. Many of the men expected to change their major field when they re-enrolled, often from a terminal to a baccalaureate degree program in engineering or business. Many of the males who expected to seek employment after dropping out were in the Armed Forces when the questionnaire reached them. Most of this group expressed high interest in continuing their formal education after service, usually in baccalaureate degree programs in an applied field. The findings from the study of dropouts are thus quite clear that many have only interrupted their college programs to take employment, and that a large number will undoubtedly return if the colleges offer them an opportunity to enroll on their own terms, *e.g.*, in part-time programs and with a change in major or career objective.

Opinions from the Colleges

College trustees, administrators, and a 10 per cent sample of the faculty in the two-year colleges were queried by mailed questionnaire about their perceptions of current programs and services, desirable priorities in expansion, and general opinions about the role and functions of the community college. In addition, opinions were sought in interviews and general discussions which would be helpful in interpreting the objective data. Questionnaire respondents were not asked to identify themselves but many did so while submitting statements in which they amplified their views. For purposes of analysis the questionnaires were pre-coded to allow grouping by type of two-year college and type of respondent. Council members from the agricultural and technical colleges and trustees from the non-urban community colleges were either less interested than other groups of respondents or were reluctant to voice their opinions about the directions in which their colleges should go. Some professed to have too little knowledge about the college to give a valid response, while others responded only that they agreed with whatever their board chairman or president had said on his questionnaire. However, administrators and faculty members showed no such reluctance.

Respondents were asked to agree or disagree with ten general statements about community colleges. Among the trustees and council members there was strong consensus with respect to four statements and disagreement with respect to three. They agreed that:

1. Liberal arts and career programs can be offered successfully by the same college.

2. Ability to pay should not be a necessary condition for college attendance, nor should interest in the traditional academic subjects offered by four-year colleges.

3. Not all graduates should be expected to attend college right after high school but provision should be made for those who wish to enter later.

4. The main emphasis in the two-year colleges should not be on occupational education.

However, there was no consensus with respect to the question of who should be admitted, or the need for separate general education programs for terminal and transfer students. Finally, they did not agree on the role the four-year institutions have been playing in determining programs in the two-year colleges. Presidents, administrators, and faculty members also showed some lack of consensus with respect to admissions, the role of the senior institutions, and general education programs, while tending to agree among themselves with respect to the statements about which the trustees showed consensus. However, the faculty disagreed among themselves in reacting to a statement about the potential of all high school graduates for further education, whether under college or other auspices. The seriousness of these disagreements lies not so much in degree as in the nature of the principles which are involved, particularly in the admissions issues.

The priorities given by the several sub-groups of respondents to the addition of programs and services provide some evidence of their willingness to advance toward comprehensiveness. Considerable agreement among the several groups was found, with the presidents apparently willing to go furthest in expanding opportunity. Faculty members tended to be more conservative than their administrators in assigning priorities to new types of programs and functions. They were particularly cautious in their attitudes toward non-degree programs of short duration and service to out-of-school youth with poor records of achievement. Priorities given by the trustees and council members reflect to a certain extent their differences in general philosophy concerning the two-year colleges, *e.g.*, the extent to which their institutions should be kept truly "collegiate," and their role in the development of universal opportunity for post-secondary education. There was fairly general opposition in all respondent groups to developing new programs for high school dropouts and for apprentices in training. Some opposition was also expressed to the creation of a general studies program for high school graduates without specific career or transfer objectives (or for students who need time to explore before making decisions).

A certain status value seemed to be attached by the respondents to most of the programs and services not now offered, which was highly correlated with the priorities they assigned. Programs which would be two years in length were given a higher priority than short-term programs, particularly if the longer programs led to a degree. Programs for retraining adults who are technologically unemployed were viewed more favorably than less-than-degree occupational training for recent high school graduates. Prospective students who had completed high school and knew what they wanted to do were given preference in program planning over dropouts and poor performers who, after some maturation, developed new occupational and educational objectives. There was also considerable support for the development of vocational counseling services for adults and out-of-school youth, although there appeared to be either satisfaction with or apathy about existing counseling services for enrolled students.

There is much in the questionnaire data which could be regarded as encouraging as the State University makes plans for extending opportunity for post-secondary education to all high school graduates. Interviews and discussions with the two-year colleges gave further support to the conclusion that existing types of colleges could become more comprehensive and that some of them are willing to do so now, providing new programs do not detract from the performance of current functions.

The Broad Picture

National leaders in government, business and industry, labor, and education—individually and on committees and commissions—have attested to the need for universal opportunity for education beyond the high school through at least grade fourteen. Although the commitment is in a sense a national one, it is the responsibility of the individual states to devise ways to achieve the goal of opportunity for all. It is doubtful that any state is yet approaching the goal of offering appropriate opportunity for all high school graduates. On the basis of percentage of high school graduates attending college, New York State might be said to have a long way yet to go. Very few states are attempting to expand educational opportunity without recourse to the public two-year college—particularly the community college. In this respect, at least, New York State has gone far in developing systems of state-administered agricultural and technical colleges and locally sponsored community colleges which are within commuting distance of a large majority of the young people of the State.

One of the major gaps in opportunity in New York State at present is in programs of remedial, occupational, and liberal education beyond the high school but below the present associate degree level. The group to be served includes students who are now unable to profit from the general education courses which are required in the degree programs, or whose prior experience in school has conditioned them against such instruction. Those most in need are graduates with diverse socio-economic backgrounds who rank in the lowest quarter or third of their high school classes, and disadvantaged youth, many of them Negro and Puerto Rican living in the urban ghettos, who are not suitable candidates for college discovery or other special tutorial programs leading to study in liberal arts and the professions. Some in the latter group lack the necessary motivation to succeed in long-term programs where material rewards, *e.g.*, good jobs at high wages, are delayed for several years. Those with little or no potential for abstract thinking would find success elusive in such programs, no matter what the investment in their remediation.

However, in each group of "untouchables," *i.e.*, the automatic rejects or the seniors who know better than to apply for college, are some who have the potential to achieve goals they dare not dream of, if they can be given a second and sometimes still another chance. The way needs to be kept open for them to move up the educational ladder after high school as they demonstrate new potential, while providing quality education for those who terminate their formal education at various levels. There is a gap of monstrous proportions in the counseling and guidance services offered most youth during the years when they must make critical decisions about education and work. Improvement is needed at all levels of education and in the several types of counseling. However, no matter how much improvement is made at the lower levels, the need for counseling the student who does (or should) seek education beyond the high school remains great for opportunity to correct his or his counselor's mistakes diminishes rapidly as he takes on the responsibilities of adulthood.

Need, for purposes of educational planning, has been defined as the gap between what is and what should be, to the end that each "may become all he is capable of being." A number of gaps have been identified which must be bridged in extending opportunity for further education to all high school graduates in New York State —gaps in functions, programs, and services. The community college is judged to be the best instrument for extending opportunity to the many thousands of young people not now served, and for bridging the present gaps in opportunity. Time is not unlimited, however, for the present two-year colleges to demonstrate that they can and will do the job. Unless such a demonstration is forthcoming, the need for a new type of institution will become self-evident.

Conclusions

The evidence is clear that *more (alone) will not be enough*—more buildings, more teachers, more degree programs, even more campuses—in achieving the goal of universal opportunity for post-secondary education. Truly new approaches to programming, instructional techniques, and supporting services are needed in order to serve potential students now without opportunity.

The psychological and sociological needs of the vast numbers of young people not now attending college constitute a major foundation for creating new types of programs, to the end that the curriculum, instructional techniques, and counseling are all meaningful to the students. The manpower needs of the society in which the students will earn their livelihood constitute the second foundation for programming, since occupational competence is a major goal of most. Finally, with more experience must come a determination of those functions, programs, and services which the colleges can provide best, and those which should be left to other agencies to perform.

10. Conclusions and Implications

The need for society to offer opportunity for post-secondary education to all cannot easily be proven with research. The decision to do so stems more readily from a philosophic commitment to assist each individual to "become all he is capable of being," for his own good and for the good of society. There is now in mid-1966 what amounts to a national goal of offering universal opportunity for education in state and local systems of free public community colleges (or other types of institutions). New York State's commitment to this goal is echoed in its most recent master plans for higher education and in other policy statements of the boards whose responsibility it is to set goals and coordinate plans for achieving them.

The goal of both State University and City University of providing opportunity for all high school graduates by a not-too-distant date relieves the researcher of the obligation to demonstrate or justify need for universal post-secondary education. Since this is true, the research effort has been devoted to defining and analyzing need more clearly for those who will take action to achieve the goal. In this inquiry, need has been viewed from two different perspectives. First, there has been empirical research to identify unmet needs—those of the students to be served in new types of programs, those of the state for trained manpower, and those of the educational establishment for new functions, programs, and services in its present colleges or, failing this, in new types of institutions. The second perspective involves a logical analysis of need, defined as the gap between what is and what ought to be, if there is to be a truly comprehensive educational program offered at the post-secondary level.

The analysis of current functions and programming produced a number of conclusions about major gaps (or needs). The first is concerned with programming, namely, *the need for expansion in order to provide a full spectrum of occupational and liberal education programs leading to certificates of completion and degrees, including remedial or developmental work, and appropriate to the diverse needs and abilities of the young people to be served.* The most serious gap is in programs which may not lead to a degree and, in many instances, will be less than two years in length.

The second gap is primarily one of function, namely, in *the provision of recognized means to achieve upward educational and occupational mobility, for the large numbers of new students to be served whose highest potential is not at all apparent at the start, and for others with a gross discrepancy between their measured potential and their prior achievement in the public schools.* Some students will exit after only a few days (or after an intake or counseling interview), others after a few weeks or a semester in a short-term course, and many after one full year. Still others will remain for two years and exit with an associate degree, some to go on to four-year college or university programs. The need is for articulation, communication, and an open mind toward the students who reveal new talents, discover new interests, and develop new insights into their own strengths and weaknesses as they gain experience after high school.

Finally, there is the gap in counseling and guidance services which must be bridged if the other needs are to be met effectively. *The need is for both more counseling and better counseling, particularly with respect to occupational choice.* Some students may need no more than a pre-admission counseling session, during which they might decide to seek training on the job or in one of the federally funded manpower training programs. A larger number need counseling not only before but at all times during their course of study—alone with their counselor and in group sessions. This is so because of the undifferentiated nature of the abilities, interests, and goals of the students who rank low in their high school classes and who often come from disadvantaged backgrounds. *Better counseling in the community colleges must be accompanied by better articulation with public school guidance programs* since planning and decision-making about educational and occupational goals should begin early, in the junior high years, and involve continual information seeking, review, evaluation, and re-planning as needed.

Subsequent sections include conclusions about student needs, manpower needs, and institutions, together with their implications. Next steps in extending educational opportunity are summarized in the final section.

Conclusions About Student Needs

The more than 50 per cent of the high school graduates in New York State not now attending college include some who are able but unmotivated toward present types of collegiate programs or the current "climate" on the college campuses; some who would profit much from out-of-school experience in employment or the Armed Services before undertaking post-secondary education; others whose potential for further education is still unknown when they graduate from high school; and still others who are in need of totally new types of post-secondary programs of counseling and instruction to prepare them for employment and other aspects of adulthood. The student interviews revealed no great press for formal post-secondary education on the part of vast numbers not going to college. Several conclusions may be drawn from the totality of the interview data. The first conclusion is that *some young people simply do not want further formal education immediately after high school and should not be compelled to partake of it.* At the same time *higher education must be made attractive to a considerable number of young people with high ability who are not now motivated to attend college, if human resources are to be utilized fully.* Finally, *there is still much more to be done to overcome the social and economic barriers to higher education which many disadvantaged young people still perceive as very real.* In times of full employment, the offer of what appear to be good wages and salaries tends to deflect students from educational programs to prepare them for job entry at a higher level. In times of unemployment, the press is for the security of employment at any wage, in order to gain experience and seniority on the job. Various kinds of evidence could be cited to support the conclusion that *many young people not now in college would find some type of program which combines study and supervised work experience more acceptable than full-time study, and would be more successful in such a program.* Students to whom high school represents a failing and/or dull experience do not often look favorably upon a classroom-based program of instruction for another full year or more, even in combination with shop and laboratory experience on the campus. The development of suitable job placements for the large numbers who might enroll in work-study programs presents a task of considerable magnitude but the need is indisputable.

Still another conclusion concerning student needs involves their self-image. From the junior high school years forward the students have been told by their teachers and counselors that they are not "college material" and, consequently, that they should not plan for or aspire to a college education. If they are to take full advantage of the new opportunities for post-secondary education which are in the offing, *these new students will need considerable counseling and other supporting services to help them identify appropriate goals, develop a satisfactory self-image, and find a socially useful role to play as adults.* Under the general umbrella of supporting services may come group therapy, social services involving the family, supervised housing arrangements, and personal development, as well as the traditional testing and guidance services. Disadvantaged youth in particular have need of such services. Experience has shown them that training or education alone does not produce good opportunities for employment, even for high school graduates.

Conclusions About Manpower Needs

The approach used in programs developed under the Manpower Development and Training Act has been to identify job vacancies in a given geographic area for which short-term job training is appropriate and then to find needy individuals (youth and adults) to enroll in such programs—with stipends, usually under the auspices of local boards of education. Analysis of recent experience leads to the conclusion that *a different approach must be taken in expanding educational opportunity for young people not now attending college, than has been taken in the Manpower Development and Training Act programs,* so as to avoid both unnecessary duplication of successful programs and wasteful mistakes in programming. In order to achieve the latter, *more attention must be paid to the multiple needs of the young adults to be served, including their need for eventual employment security and status.*

The future brings promise of abundant employment opportunities at sub-professional or aide levels, which have scarcely been reflected upon heretofore. The development of social technology programs may in time rival the industrial and business technologies in importance in serving societal needs. Technicians and/or aides might be trained who would assist professional workers holding baccalaureate and higher degrees in social welfare, public health, housing and urban renewal, home economics, and legal work.[73] Disadvantaged students in particular might profit from such programs in community colleges since they already possess some cultural understandings and skills which are assets in communication, and have needs for status and recognition which could be satisfied in this type and level of employment.

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[73] See Arthur Pearl and Frank Riessman, *New Careers for the Poor: The Non-professional in Human Service* (New York: The Free Press, 1965) for a full discussion of career opportunities at the sub-professional level.

The conclusion is drawn that *the development of new programs to meet the sub-professional manpower needs of the Great Society is the proper concern of the two-year colleges and others, concurrently with the development of suitable employment opportunities for this new level of worker.*

Other conclusions concerning manpower needs which are of considerable importance involve *the expansion of current programs for training technicians, needed new programs for training semi-skilled workers, and the special problems of extending educational opportunity to more women.* The plea for developing programs for training so-called social technicians in no way diminishes the need for expanding other technician programs, particularly in engineering and science. However, there are serious problems of student recruitment and retention in the latter fields which appear to take priority over problems of expansion, *per se.* An assessment of present curriculum organization in the technologies, including pre-technology programs, high school requirements, counseling, job placement, and various other facets seems needed if a sufficient supply of technicians is to be produced by the colleges. The findings from the dropout study lead to the conclusion that *more attention needs to be paid to the patterns of work and study which the students choose for themselves, regardless of the curriculum prescribed by the college.*

The conclusion is not new but needs to be repeated that *means must be found to dignify the service occupations (and other types of jobs below the technician level) in the eyes of the young people.* The professions and technical occupations, whose manpower needs are judged to be critical, offer employment to relatively small percentages of the labor force. In terms of sheer numbers, the need for service workers is greater than the need for any other type or level worker. Great caution must be exercised lest the creation of new educational opportunity result in the development of great frustration on the part of those to be served, particularly among the group whose occupational ambitions far exceed their capabilities. Means must be sought to divert the aspiring electronics technicians with very low mathematical aptitude, for example, into other types of occupations with a shortage of workers, where their interests will be satisfied while they are performing at a satisfactory level.

The needs of women for educational opportunity beyond the high school create a special problem in relation to manpower needs, which has not been sufficiently recognized in planning. Their high school performance is such that they are often better candidates for college than boys of the same age. However, their interest and motivation appear to be lower since most do not expect to be employed for more than a few years after high school. The pool of available jobs as typists, clerks, saleswomen, waitresses, and unskilled workers will not soon run dry. Many young women of considerable ability appear content to fill them at relatively low wages, while living at home with their families before marriage. Much more than the men, young women tend to fall in bi-polar groups, one of which seeks baccalaureate level education in the liberal arts and the professions and the other only minimal training, *e.g.*, in business or hairdressing, or none at all. The goal of universal opportunity will not be achieved unless programs to meet the needs of both boys and girls are devised, and unless students of both sexes are attracted to them.

Conclusions About Institutions

The reluctance of some of the two-year colleges—and of some part of the faculty and staff in most of them—to assume an active role in the expansion of opportunity is undeniable. A few individuals or sub-groups take the position that they would welcome the creation of a new type of institution to offer post-secondary opportunity for occupational education to the students they do not now serve. Still others take the position that no real need has been demonstrated which cannot be met by the secondary schools, perhaps in a post-graduate year. However, the negative evidence is limited in volume and the conclusion is drawn that *the State University should look to its present two-year colleges to expand opportunity, before considering seriously the creation of a new type of institution*—in effect, a third type of public junior college (or a fourth, if the now extinct institutes of applied arts and sciences are counted).

Evidence from diverse sources leads to the conclusion that *a great deal of work needs to be done to help the public understand what it should expect of its local community college.* The presently under-informed (or misinformed) public includes lay citizens, parents, board members, teachers and counselors, civic leaders, labor union officials, and high school students who may subsequently enroll. Creative leadership is needed both within and outside the confines of the campus in building an image of the community college as a service institution.

The need for *in-service education for local board members concerning the basic issues involved in expanding opportunity* emerges clearly from the study findings, if boards are to do a proper job of charting the directions their colleges will take. Furthermore, with the advent of increased faculty participation in decision-making about instructional matters, new faculty should be recruited who have a commitment to service in the community college, in the sense that they understand how it differs from a four-year institution with selective admission policies. It is entirely possible that *new faculty and staff may need orientation during their first year about the proper roles and functions of the community college,* as they begin to gain experience with students and programs.

The issues of open-door admission, track programs, and less-than-degree curricula need to be faced squarely in weighing the merits of establishing new types of institutions which would inevitably become competitive. The data show an unmistakable commitment by board members and personnel of the colleges to serving youth, but an equally strong feeling of confusion or ambiguity about who should do so and how.

It may be unwise to attempt a simultaneous statewide expansion of opportunity in all the community colleges because of wide differences in their expressed willingness to be the institutions to "do the job." *Need is obviously greatest in the urban areas where there are sufficient numbers of non-college-goers to plan for and where economic disadvantage is most severe.* There are islands of hope among the urban community colleges where the challenge of expanding opportunity would probably be met gladly and effectively. At the same time, *the financial needs of the community colleges are sufficiently acute* that one may conclude *that the State may need to pay an increased share of the cost of serving new types of students, at least for the time being.* When colleges are unable to admit all applicants who qualify for their degree programs, because of financial or space limitations, it appears unreasonable to expect them to make room for far less qualified applicants and to create new types of programs for them. Caution must be exercised, however, lest the colleges ignore their obligation to grow in response to the needs of the times or lest they pass on to the State the task of providing funds for new programs which the communities themselves ought to finance.

Next Steps

Pilot programs are being established in a number of urban areas which will be administered by local community colleges with State funds and under the general supervision of the State University. Their function is to serve disadvantaged youth who now lack appropriate opportunities for education beyond the high school. They are to be served primarily in occupational programs of varying duration, with good counseling, job placement, and other supporting services. Funds have been provided which make possible only a minimum start on the expansion of opportunity, in what might serve as demonstration centers. However, it represents a concrete step in the expansion of educational opportunity, with the cooperation of many interested parties.

It may be contended that any high school graduate who lacks appropriate opportunity to continue his education is today disadvantaged—whether by virtue of his race, social class, quality of high school preparation, motivation, or place of residence. Numbers are largest and disadvantage most severe in the urban areas, among people of all ages. New York State has far to go before all such disadvantage is removed or even alleviated. *To provide more of the same type of opportunity now offered is to do little to remove the educational disadvantage. For new programming, new media for instruction, new concepts in facilities planning, new techniques in counseling and group work—all these will be needed* as the State University moves to meet the needs of the young people now without opportunity for education beyond high school.

Appendix A.

Guidelines for Establishing and Developing State University Urban Centers

Function

The Urban Center shall provide opportunities for post-secondary non-degree education, generally of less than two years, for out-of-school youth and adults whose educational interests and needs are not now appropriately served in existing colleges and programs.

Clientele

Priority for admission shall be given to disadvantaged urban youth who are high school graduates, or dropouts at least 18 years of age, whose limited education and training destine them for underemployment or unemployment. As the Urban Centers develop, adults may be enrolled for retraining, upgrading, refresher courses, or other short-term training for employment.

Recruitment-Admissions

Plans should provide for an initial enrollment into each Urban Center by Fall, 1966. Since students are expected to pursue courses of varying length, as well as to receive services such as counseling and guidance, additional students may be served during any single semester or year. Recruitment, followed by counseling-testing-remediation-referral, should be continuous throughout the year. New programs for which a need has been established should be started whenever ample enrollees, space, equipment, and instructional personnel make doing so feasible.

Traditional admissions criteria should be relaxed. Admissions should be based upon evidence that the applicant's motivation is adequate, or can be increased adequately, for significant benefit from the programs and services to be offered. The Urban Center should not be used as a holding area for those students who do not *quite* qualify for regular college admission; rather, the initial programs should be designed primarily for those whose high school preparation was inappropriate, or achievement too low, for college admission. The most likely Urban Center applicants probably will come from high school vocational and general studies programs. Any minimum achievement level that is required for admissions should be reasonable and flexible—for example, eighth-grade achievement in reading and arithmetic.

Promising sources of assistance in recruitment appear to be the New York State Employment Service counselors in the urban area, high school principals and counselors (using techniques such as those in the CUNY College Discovery Program), trade union offices, Youth Opportunity Center counselors, and personnel at other centers in the antipoverty program. In order to insure that disadvantaged youth will actually be served, it may be advantageous to allocate a certain quota of applicants to each high school which would be proportional to the percentage of disadvantaged students each enrolls; a certain number of places should be reserved for open application, however. This technique has been used successfully in the College Discovery Program. The Office of Economic Opportunity has developed criteria for identifying the disadvantaged which may be applicable to the Urban Centers to be developed.

Programs

The programs envisioned for the Urban Centers fall into —but are not limited to—the following categories:

1. *Counseling-testing-referral-placement.* This aspect of the Urban Center's program shall be regarded as equal in importance to the instructional function. Many of the proposed students will lack orientation to the world of work, will have undiscovered or underdeveloped potential, and will not have come to terms with either school or society. For such students a thorough program of counseling and guidance shall be provided. After counseling, some may be referred to other agencies for training, job placement, and/or social services, in lieu of enrollment at the Urban Center.

2. *Remedial work in tool subjects.* This aspect of the Urban Center's program shall be offered to enable students to profit from occupational training and, in cases of high but undeveloped academic potential, to qualify them for admission into a regular college program. Strong programs shall be provided to develop skill in reading, writing, speaking, listening, mathematical computation, and analytical thinking.

3. *Short-term courses.* This aspect of the Urban Center's program shall be designed to develop certified employability.

a. Offerings will be planned to meet real and anticipated manpower needs in the metropolitan area served by the cooperating college.

b. Curricula ordinarily will be less than two years in length; some courses may be completed in less than one semester. Clock hours, rather than unit credit, may be used to characterize the length of some programs.

c. Programs should not duplicate those offered locally under the Manpower Development and Training Act or by other agencies serving the disadvantaged, unless evidence clearly supports such duplication—to serve all interested applicants, or to fill jobs, or to meet certain desirable educational objectives.

d. Students ordinarily will not be required to enroll in general education courses as part of their occupational training, except as such courses are deemed an essential part of the preparation for a particular job or for personal development. For example, consideration might be given to required enrollment in a course aimed at developing positive attitudes toward the world of work. Opportunities to experience a wide range of such courses as those in the creative and performing arts should be provided and participation in them encouraged.

4. *Work-study programs.* This aspect of the Urban Center's program shall be designed to help the students make an easier transition from school to job and, at the same time, to provide a source of income from which the students can pay such personal expenses related to Urban Center attendance as transportation and lunch. An attempt should be made to obtain federal funds for work-study programs at the Urban Center or at the cooperating college for students who are not ready for supervised work-placement in the field. The following should be recognized in planning work-study programs for all students:

a. The disadvantaged students will have serious financial needs while they are enrolled which are not solved by free tuition or scholarships. Real income of varying amounts will be needed by most students in order to make their enrollment economically feasible.

b. Learning how to obtain and hold a job is as important a part of the curriculum as the skill courses related to employment. Much of the latter can be taught in a short period of time, but learning to be employable may be a slow and painful process.

c. Flexibility in work-study arrangements is very necessary. The requirement that students be available for full-time study should be relaxed, as much as possible, for those who are employed in jobs they cannot afford to give up. Others will need part-time employment to survive; still others may not be able to profit from full-time exposure to study.

5. *"Vestibule year" programs.* This aspect of the Urban Center program shall include courses that will be terminal for students who take jobs at completion, but might lead to enrollment in degree programs for others (technician or transfer), depending upon their potential. It may prove desirable to offer some first-year degree courses which could be used to satisfy associate degree requirements. Remedial work might be combined with first-level skill courses in the fields of business, industrial, and health technologies. Each student should move at his own pace through whatever program seems best suited to his aptitudes and abilities to enter employment or undertake further study.

Student Services

In addition to courses, counseling, and related services, the Urban Center should provide opportunities for each student to join in social pursuits, special interest groups, sports, and/or other extracurricular activities. Each Urban Center should arrange for its students to participate in some activity programs along with students regularly enrolled at the cooperating college. Funds should be made available to assist those who cannot afford to pay the fees and other charges which normally are made for such activities.

Advisory Committees

To secure advice germane to the Urban Center programs, and to assure full liaison with other interested educational agencies and the general public in the local communities, two types of advisory committees should be formed:

1. Citizens advisory committees—representing leaders in business, labor, industry, and the professions, and pertinent area social and cultural organizations—should be formed by State University.

2. Technical advisory committees—representing the specialized and professional staff of organized labor, business, and industry; public health and social agencies; and other educational institutions actively engaged in programs in the locality served by each Urban Center —should be formed by the administering community college.

Job Placement

Placement into meaningful employment after training will be of critical importance for disadvantaged youth and shall be viewed as a significant responsibility of the Urban Center. A continuing study of manpower needs, employment trends, and new career opportunities will be required. In addition, strong public relations effort designed to acquaint employers with the Urban Center programs and the capabilities of its graduates should be exerted regularly.

Evaluation

The nature of the Urban Center programs and the educational challenge posed by the qualifications of its students provide an excellent opportunity to study the impact of the Urban Center. Each Urban Center shall, therefore, keep appropriate records, make appropriate measurements, and hire necessary staff to learn about the Urban Center's impact upon the students and the community. Plans for evaluation must meet the approval of State University.

Appendix B.

List of Approved Curriculum, Option, and Sub-option Titles

Advertising

- Advertising Art and Design
- Advertising Design and Production
- Commercial Art
- Fashion Display and Photography
- Fashion Illustration and Advertising Design
- Graphic Arts and Advertising Technology

Agricultural Engineering Technology

- Agricultural Power Machinery
- Agricultural Structures and Electrification

Agriculture

- Agricultural Business
- Agricultural Science
- Agronomy
- Animal Husbandry
- Animal Science
- Dairy Industry
- Dairy Technology
- General Agriculture
- Horticulture
- Poultry Husbandry

Air Conditioning Technology

Aircraft Operations Technology

Automotive Technology

Business

- Accounting
- Advertising
- Banking, Insurance, and Real Estate
- Business Administration
- Fashion Buying and Merchandising
- Fashion Communications
- International Trade and Travel
- Marketing
  - Industrial
  - International Trade
- Office Management
- Retail Business Management
- Sales Management
- Secretarial Science
  - Advertising
  - Executive
  - Industrial
  - Legal
  - Medical
- Small Business Operations
- Traffic and Shipping

Chemical Technology

- Plastics Technology

Child Care

Civil Technology

- Highway Technology

Community Service Assistant

Construction Technology

- Architectural Design
- Building Construction
- Construction Business
- Mechanical Equipment for Buildings
- Surveying

Correction Administration

Data Processing

Dental Assisting Technology

Dental Hygiene

Dental Laboratory Technology

Electrical Technology
- Electronics
- Electronic Communications
- Industrial Controls

Engineering Science

Fashion
- Apparel Design
- Interior Design
- Pattern Drafting and Design
- Textile Design

Food Processing Technology

Food Service Administration
- Institutional Foods
- Restaurant Management

Hotel Technology
- Administration
- Culinary Arts

Industrial Instrumentation Technology

Industrial Laboratory Technology

Industrial Technology
- Management Engineering Technology
- Textile Administration and Sales

Liberal Arts and Sciences
- General Studies
- Humanities
- Mathematics
- Science
- Social Science

Marine Technology

Measurement Science

Mechanical Technology

- Diesel-Gas Turbine Technology
- Mechanical Design
  - Design and Drafting
  - Product and Machine Design
- Mechanical Power Technology
- Production

Medical Laboratory Technology

- Inhalation Therapy

Medical Office Assistant

Metallurgical Technology

Nursery Education

Nursing

Ophthalmic Dispensing

Optical Dispensing

Optical Technology

Ornamental Horticulture

- Biological Technology
- Floriculture Merchandising
- Floriculture Production
- Landscape Development
- Nursery Management

Photographic Technology

Police Science

Practical Nursing

Public Health Technology

Environmental Health	Radiological Health

Recreation Supervision

Wood Utilization Technology

X-ray Technology

[December 1965]

Appendix C.

Interview Teams and Participating High Schools

Buffalo

Interview Team

Joseph E. Nechasek, Coordinator
School of Education, State University of New York at Buffalo
- Armand Altman
- Marsha Altman
- Andre Bennett
- Henry P. Cole
- John Czirr
- John Marciano
- Douglas Mickelson
- Phyllis Munson
- Delcenia A. Powell

Participating High Schools

- Bennett High
- Bishop Colton High
- Bishop Timon High
- Bishop Turner High
- Cleveland Hill High
- East High
- Fosdick-Masten Vocational High
- Hutchinson-Central Technical High
- Seneca Vocational High
- South Park High

Capital District

Interview Team

J. Robert Dagett, Coordinator
Capital Area School Development Association, State University of New York at Albany
- Thomas H. Calvin
- August E. Cerrito
- Carl Cusato
- Joseph Daly
- David J. Fotheringham
- William O'Neill

Participating High Schools

- Albany:
  - Albany High
  - Milne High
  - Philip Schuyler High
  - St. Joseph's Academy
  - Vincentian Institute
- Schenectady:
  - Bishop Gibbons High
  - Linton High
  - Mont Pleasant High
  - St. Columbia's
- Troy:
  - Catholic Central High
  - Troy High

New York City

Interview Team

Laurie B. August
Howard Brown
Gloria F. Butler
Darryl Clegg
Norman E. Hodges
Clayton Majete
Harriet Mandell
Beverly J. Pearson
Rose C. Thomas

Participating High Schools

Benjamin Franklin High
Bishop Laughlin Memorial High
Bishop McDonnell Memorial High
Bushwick High
Eli Whitney Vocational High
George W. Wingate High
Louis D. Brandeis High
Morris High
Samuel Gompers Vocational and Technical High
Thomas Jefferson High

Rochester

Interview Team

Irene Athey, Coordinator
College of Education,
University of Rochester
  Margie Carson
  David Crellin
  William Dwyer
  Hugh W. Fraser
  Robert Grims
  E. Peter Johnsen
  William R. Johnson
  Warren Lasell
  Thomas Maxwell
  James Miles
  Duane Rubadeau
  J. Michael Schur
  Charles Searles
  Richard Starr
  Byrna Weir

Participating High Schools

East High
Edison Technical and Industrial High
Jefferson High
John Marshall High
Madison High
Nazareth Academy

Syracuse

Interview Team

Sandra Peterson, Coordinator
Youth Development Center,
Syracuse University
- H. Neal Camp
- Ronald Corwin
- Shelley Corwin
- Bert Gourdin
- Richard Hope
- Henry Merritt
- Sandra Merritt
- Mark Stein
- Charles ViVona

Participating High Schools

- Anthony A. Henninger High
- Assumption Academy
- Bishop Ludden High
- Corcoran High
- Fayetteville-Manlius Central High
- St. Lucy's Academy of Syracuse
- Syracuse Central Technical High
- William Nottingham High

Utica-Rome Area

Interview Team

Frank K. Mosher, Coordinator
Utica College, Syracuse University
- James Brenner
- Helen Brown
- Patricia Cannon
- Mary Danforth
- Eric Huggins
- James Markey
- Edward Marsh
- Richard Monson
- David Myers
- Kate Pritchard

Participating High Schools

- New Hartford High
- New York Mills High
- Rome Catholic High
- Rome Free Academy
- Thomas R. Proctor High (Utica)
- Utica Free Academy
- Whitesboro Central

Yonkers

Interview Team

Thomas Loudon, Coordinator
Bureau of Guidance and Pupil
Personnel Services, Yonkers
Public Schools

- Roger Abbate
- Frank DeMarco
- Harry Glickman
- Mildred Goldberg
- Bernard Joseph
- John Mauro
- John Williams
- George Wood
- Marion Wyatt
- Harold Zaroff

Participating High Schools

- Charles E. Gorton High
- High School of Commerce
- Lincoln High
- Roosevelt High
- Sacred Heart High
- Saunders Trades and Technical High
- Yonkers High